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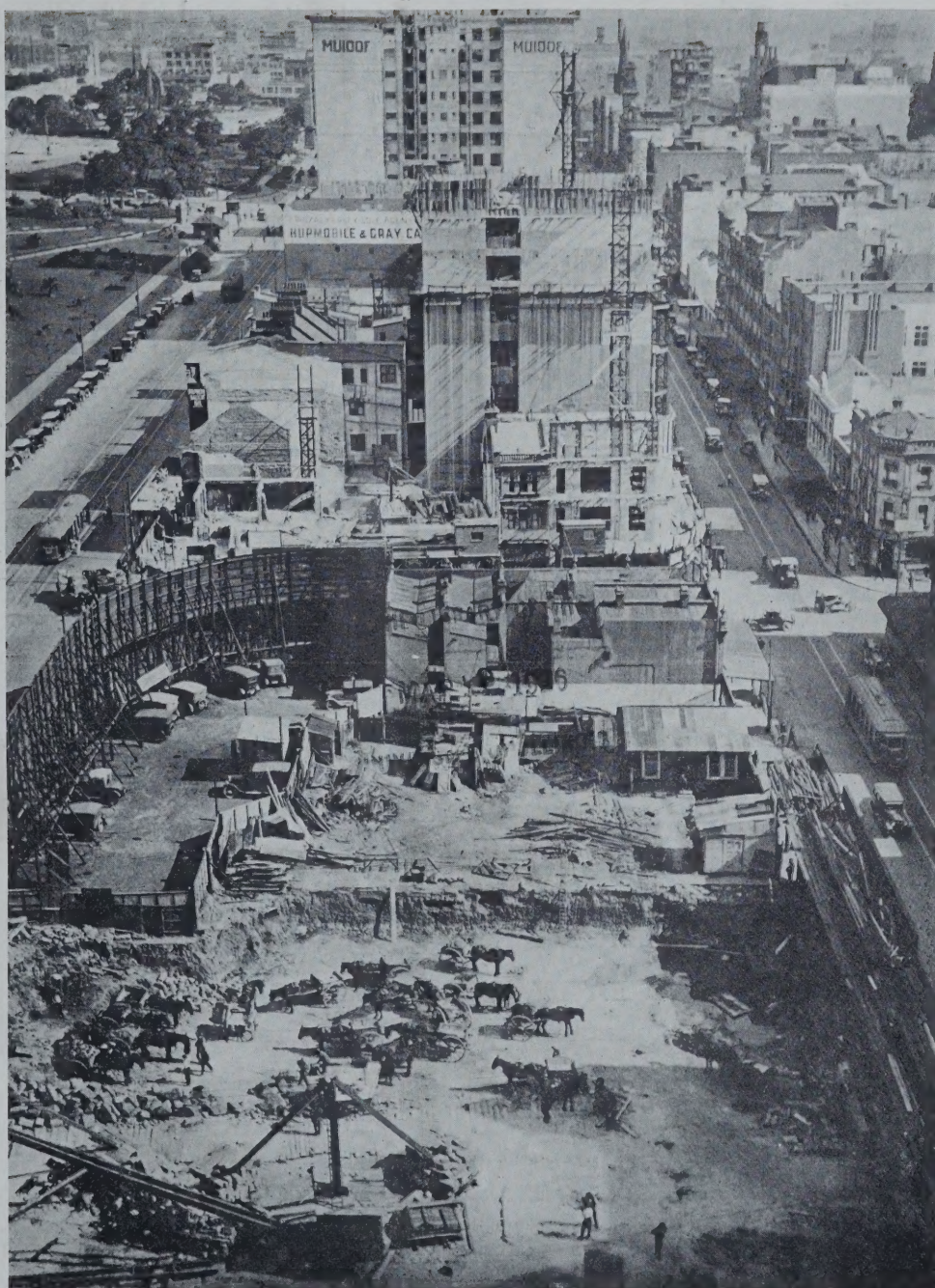


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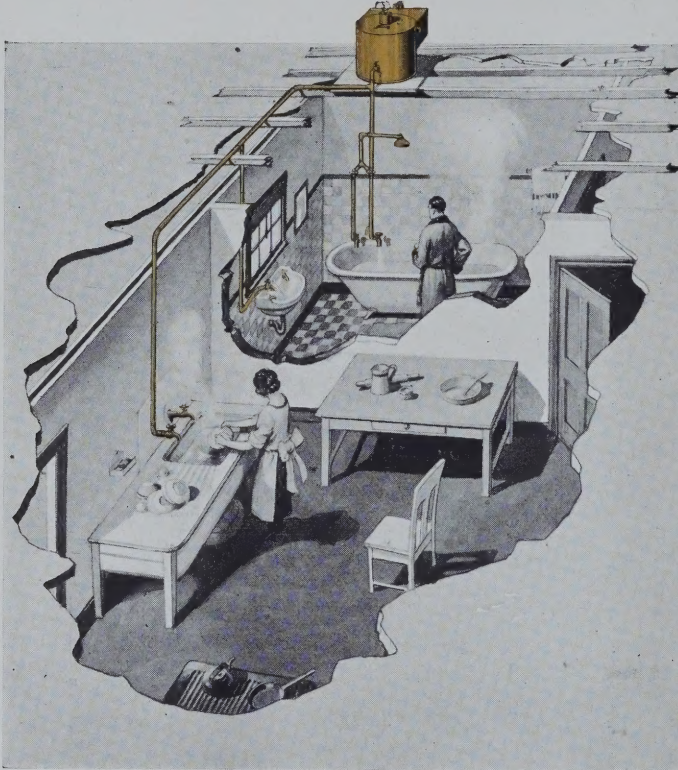


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ARCHITECTURE

THE JOURNAL OF PROCEEDINGS OF THE INSTITUTE OF ARCHITECTS OF NEW SOUTH WALES

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ORDINARY GENERAL MEETING SYDNEY, 1st DECEMBER

SIR CHARLES ROSENTHAL (President) occupied the Chair.

Minutes of Meeting held on 3rd November were confirmed.

Mr. Robertson was welcomed as a new member. Messrs. J. Perkins and C. V. Rees were ballotted for, and unanimously elected as new members.

Apologies were received from Messrs. Adams, Kennedy, Weekes, Minette and Col. Vernon.

The Chairman announced that there would be no meeting in January, but the Annual Meeting would be held on the 2nd February, 1926.

CHAIRMAN: I desire to mention that Miss Jagers, who has been our Secretary (and a very efficient one) for nearly two years, has now found it necessary to tender her resignation, on account of family calls requiring her to go to Melbourne. Members of the Council, who have been closely associated with Miss Jagers, very much regret that this decision has been forced upon her, but this afternoon we had no other alternative but to accept it with great regret. We officially recognise the value of the services she has rendered to us, and we wish to give her a letter from the Council which may be of some use to her later on, should she desire to take up similar work again.

When Miss Jagers was appointed as Secretary, she was selected from a number of applicants, among whom was Miss Chester, who was interviewed, but the conditions at the time the appointment was made were not just suitable for her, so she withdrew her application. It now happens, however, that Miss Chester is available for the position, and the Council and members of the Committee interviewed her, a satisfactory arrangement was arrived at, and ratified by the Council, and Miss Chester was duly elected Secretary this afternoon. I am sure every assistance will be given to her to make her work as interesting and congenial as possible, also that every member joins with us in wishing Miss Jagers the best of good fortune wherever she goes, and in expressing appreciation for the work she has done. I am sure

the relationship which has been so cordial and happy between Miss Jagers and the Council will be continued under the new regime, and that Miss Chester will get the same degree of support that has been accorded to Miss Jagers.

QUANTITY SYSTEM.

In discussing this matter to-night, I would ask at the outset that members would be sober and temperate in their remarks bearing on this rather difficult matter.

We need to remember that our relations with the Master Builders have always been exceedingly cordial, and we wish them to remain so, and even although there may be differences of opinion on this question of quantities, I am sure these can be adjusted without any conflict between the Master Builders and ourselves. There are reasonable men on both sides, but the Council is anxious that there should be an expression of opinion on this problem. You will have observed from the press that the members of the Master Builders' Association have on several occasions been rather perturbed because certain architects have seen fit to call tenders for work, the value of which was over £2000, without obtaining quantities. It is recognised first of all that members of the Institute have accepted as a basis £2000 on which quantities shall be obtained, but the members of the Institute cannot bind proprietors to agree to that. Every member, if he wishes to be loyal (and I am sure he does) will use his best endeavours with his clients to see that work of that magnitude is provided for by quantities, but we are bound to accept the proprietor's decision. The builders say that it is not a fair thing that they should night after night have to be pricing up jobs, and only getting one out of a great number.

They say they get nothing for their work, and consider that this agreement in regard to quantities should be honoured by architects in this City more than it is. When we have tried to get at the bottom of some of these difficulties, we have found that there are several reasons why architects have departed from the custom. In some cases there have been several buildings of the same type, which, while in the aggregate, might cost so much, individually do not. Some-

times there is defective estimating. An architect might say £1500 or £2000 whereas when the tender comes out it is £3000. Sometimes proprietors will not agree. The result of a special Council meeting was:—

1. That the amount for which quotations should be obtained be raised from £2000 to £3000.
2. That quantities should not be a part of the contract.
3. In the case of alterations costing up to £5000, quantities need not be obtained.
4. That it be stated in the agreement that the Institute agrees with and supports the quantity system, and will recommend it to clients, but they have not the power to compel clients to accept the same.

The Council desires the benefit of the opinion of members, because this will mean a conference with the Master Builders, to see whether some compromise cannot be arrived at. The builders say it ought to be lower, and the architects say it ought to be higher. I would like a frank discussion.

MR. BUCHANAN: I desire to put a few facts before the Institute in connection with the matter of quantities. Up till recently, as far as my office was concerned, everything has gone along smoothly, and conditions have been complied with. There is a case at present cited by the Master Builders, and my name is mentioned. Two documents have been sent out broadcast stating that I am not complying with the conditions. That probably may be news to the Institute. I have seen the documents, and have heard of their distribution. The next point is my evidence in connection with this particular work, which is a residence at Vauluse. Prior to getting tenders I informed the client in writing that a certain procedure had to be followed. My client emphatically refused to have quantities, and instructed me to go ahead. I called public tenders, and I had 15 applicants. Many of the Master Builders do not care whether quantities are taken out or not—they are not going to worry about that, but will tender. Meantime this circular letter goes round, tending to boycott and restrict trade. How many tenders will come in on the 3rd December I do not know, but probably there will be 8 or 9, some of them from Master Builders. That proves there is a division of opinion amongst their own members. They are not loyal, and they think this present agreement is wrong; therefore they are going to tender, or not tender as they choose. The question I would ask is—is an architect to turn clients away, and allow his work to be taken elsewhere because an agreement has been made that covers a third party, who has really no say in the agreement? If you adopt that attitude, you boost the builder-architect, who is a very busy man to-day, and who is only too pleased to prepare plans. The builder-architect element is a very serious one for architects and builders to consider. No individual member can force a client to have quantities, and you have admitted that you cannot force your members, so we are at a dead end. I am prepared to support any agreement fairly and legally upheld. My office is run for my clients in a clean way. I have a clean reputation, and it is a serious thing for me to have my name broadcasted in this way. Judging from the recent remarks of the President of the Federated Master Builders in Melbourne, everything does not seem to me to be running smoothly between the architects and the builders—it is quite the reverse.

This agreement was made in 1908. Things have changed since then, and I think the amount should be increased to £4000. With the architect's 6 per cent., the quantity surveyor's 1½ per cent., the client is loaded up with a pretty good wad before he starts.

It is being made a bit impossible. I suggest as a solution that where an architect can legitimately and honestly prove that his client has been told of the advantages, and refuses to comply with them, a letter should be written, and the matter would then be one of individual choice on the part of the builder whether he tendered or not, but to threaten to boycott and restrict trade, as they are doing, is very wrong. I, as an individual member, can get legal advice, and I think the Institute should do the same, as they did recently in connection with the matter of the builders signing the final certificate that they had paid all the wages. What honest man would refuse that? And yet they made a great fuss about it. We should get legal advice on the question now before us, and have it cleaned up.

MR. SCOTT: I agree with the quantity system as it exists. I certainly think there would be no harm done to raise the minimum amount to £3000. People who tender for £2000 or £3000 contracts are not as a rule particularly interested in quantities, and a great many of them do not use them. They have rule of thumb methods, which they find quicker. I am glad you mentioned at the beginning that this meeting should conduct itself with a certain amount of decorum and respect for itself, which has not been shown sometimes unfortunately by other Associations, and therefore we are in a better position to deal with this matter to the interest of all parties. I think when Mr.

Buchanan's client refused to have quantities, if he had written to the Master Builders' Association to that effect, they probably would not have taken the stand they did. If they were unaware of the fact, they were distinctly wrong in taking the stand they did, because from the inception of this agreement, it was clearly understood by all parties that we were to use our best endeavours to have quantities for all jobs over £2000. The Builders were a party to that honourable agreement as much as we were. In our office it has happened that we thought that a building would cost £2000, and we have got a message from a builder, who otherwise wished to tender, that it exceeded £2000, and he could not tender. That man is a credit to his profession, and he did the right thing.

He might not have been aware of the fact that the client objected. I understand this discussion is preparatory to a conference, and I think we are justified in asking for an increase to £3000.

MR. BUCHANAN: The Secretary of the Master Builders rang me up and asked me if it was a fact that I was getting tenders, and I informed him that I had received a letter from my client emphatically refusing to have quantities. Therefore there is no excuse; they knew all about it.

CHAIRMAN: This is largely a matter of education. It has been said, probably with some truth, that when quantities are taken out, you insure a much more even contest from a tendering point of view, and the proprietor probably saves what it costs in the way of quantities. Our conditions of contract, which are now universally used by both builders and architects, and accepted by clients, have only been brought about by a gradual evolution in training and education.

There are no means whereby we can force our clients to accept quantities, and there is no reason why an architect should throw over his work, any more than builders should refuse to tender, but I think we should always communicate in writing with the proprietor and get the reasons for his refusal, then in fairness send our letter and the reply to the Builders' Association. We then put ourselves in a true position. We should morally try to stand by our agreement, whether a certain number of builders elect to break it or not. If we find we are up against a dead end, but we shall have to evolve some other means. It has been suggested that a scheme might be evolved whereby builders might be made responsible for the procuring of quantities. Some of the builders will tell you that they do not see eye for eye with the quantity surveyors in the methods which they adopt. There are differences of opinion among the builders themselves. If it is found that the present system works harshly, we might make a recommendation to the Builders. If they say they won't stand by it, then we shall both be forced to find some way out. Their rights are just as valuable to them as ours are to us. Some electrical firms, in tendering for the City Council, agreed to a scheme whereby the successful tenderer would pay the others for the work involved in the preparation of the tenders. It was considered to be an immoral practice.

MR. CLAMP: There is a certain amount of right on the builders' side. They have to sit up night after night preparing quantities. No man earns his money more than the quantity surveyor. We have never had an objection against the present system by client or builder. I think the builders should receive quantities for anything over £2000, and that we should adhere to the agreement.

MR. BUDDEN: I appreciate tremendously the assistance of a capable quantity surveyor. Their plans and specifications are extremely useful to us, but there are cases, particularly in alteration jobs, where the quantity surveyor cannot prepare a true bill of quantities. I think the £2000 should under no circumstances be lowered, but I think in doubtful cases a letter should be sent to the Builders' Association stating that either the client objects to the quantities, or that we do not think they are advisable. It is then their responsibility to advise their members whether they are to tender or not. There are dozens of builders who do not want quantities.

MRS. TAYLOR: Should it not be within the province of this Institute to prevent a builder-architect from carrying out work of £10,000 upward continuously? It is an architect's work.

At this stage of the proceedings a gentleman who is a building surveyor, stated that he frequently received plans with no name of the architect or builder on them. He asked if this was legal.

CHAIRMAN: Unfortunately it is. The Board is endeavouring to get that law amended, to compel such men to have proper qualifications.

MR. LOUAT: I think £2000 is a fair thing. Quantities are in the interests of clients if they only knew. If you call for a job of any size, builders come in and ask for quantities. If there are none, they are not interested any further, and it limits the competition. The clients would get a lower price if the competition was not so limited. I think the quantity surveyor's fee requires some revision. I am not in favour of raising the amount to £3000.

Motion that "the amount remain as it is"—lost, by 21 votes to 6.

No. 1, that "the amount be raised to £3000"—carried.

No. 2, Mr. Scott thought that prior to the sealing of that document it should be inspected by the architect in the presence of the builder, because it was a schedule on which extras and deductions were made. An architect should not accept it without investigation. This was often not done.

THE CHAIRMAN stated that it was subject to review before being sealed, but once it was sealed it remained so.

(No. 2 carried, Mr. Buchanan opposing.)

Motion No. 3, MR. BUDDEN considered the amount too high. He suggested £3000.

Motion was put—"Those in favour of £4000"—carried by 12 to 10.

Motion in favour of £3000—lost.

No. 4, MR. SCOTT supported. He considered that the architects had honourably upheld the agreement. 95 per cent. of the number of jobs and 99 per cent. of the value of the jobs had been taken on quantities. The number of evasions was very small. It was good for the benefit of the building trade generally that they should have tenders. He thought the builders were exaggerating the position. (Motion carried.)

A REVIEW OF ARCHITECTURAL PROGRESS IN N.S.W.

LECTURE by SIR CHARLES ROSENTHAL

IN speaking on the above subject, I am not going to pose as an authority. It is a bigger problem than I at first anticipated. The development of architecture in this City and State has for some few years past been very marked indeed. There are certain buildings in the City now which give us quite a good idea of what the older type was, and what it is capable of being remodelled into, and we have also the newer type. What I desire to say will bear primarily on N.S.W., but we might also look at Victoria. In N.S.W. and indeed in every country, architecture has been influenced by the materials at hand. Sydney has been particularly fortunate in regard to its stone, which is handy and cheap. At the risk of being called heretical, I think we might say that in N.S.W. we have a better type of buildings than is found in England. In

London, we know that many buildings comparatively small in size are brimful of interest, but architecturally, and from the point of view of construction, I think it can be said that the buildings in Sydney compare very favourably with anything in London. Victoria has only three materials—bluestone, which is sombre, cold and expensive, of which most of the early warehouses were built, because it was readily obtainable. Victoria has also the Stawell stone, which is very hard and expensive. About 30 years ago an Insurance Company from America decided to build in Melbourne and Sydney. In Melbourne they used granite, and in Sydney trachyte. They were practically the first types of those more expensive stones. In Melbourne brick and cement has been the medium for many years past. If you compare Sydney with Melbourne, you find that Sydney

has really had a big advantage, primarily due to the material at its disposal. Since the days when stone was cheap in Sydney, and when masons' work was comparatively cheap, we have reached the stage when labour has become more and more expensive, and the use of stone is restricted to buildings of a more high class type, and more than ever now, concrete is being used, partly because it is more flexible, not using so much space for walls, giving opportunity for treatment of front, lightness in construction, and security from fire.

In Sydney we had first of all the very early work, which was largely brick, then later, as quarries developed, we find that stone became dominant, and now concrete is gradually taking a larger place than ever. When we look back over the years, it is interesting to recall some of the old buildings and old streets.

Through the kindness of brother architects, I will show some early views of the streets of Sydney, and also illustrations of Melbourne, showing an old world city and a new world city, showing the English and American style in the method of laying out the streets, and also the character of architectural development.

In Sydney we have more or less narrow streets, while in Melbourne you have fine wide streets which give ample opportunity for the treatment of facades and the treatment of light and shade. Think of Pitt Street 20 odd years ago. When I first started practice in Sydney, 25 years ago, Pitt Street had not one important building abutting onto it except the G.P.O.

At that time we were interested in the remodelling of the Union Bank. You will remember it was built by the late Mr. Wardell, also the E.S. & A. Bank, at the corner of Collins and Elizabeth Streets, Melbourne, and St. Mary's Cathedral, Sydney. In remodelling the Union Bank it was desired to preserve the character of the original architecture, so an attic storey was constructed, and the building as seen to-day has not materially suffered because of the fact of keeping to the original design.

In those days, when Sir Thomas Hughes was the first Lord Mayor of Sydney, and the remodelling of the Union Bank was being considered, a proposal was made to cut off the corner of the Union Bank in order to allow O'Connell Street to have its natural outlet into Pitt Street. It was proposed to put the leg of a compass into Pitt Street and describe a circle which would take off the Herald corner, the old Empire Hotel and the Union Bank, and also take in the corner of the Commercial Union Insurance Building, which was about to be remodelled. I think there was a sum of £5000 required to have that done, but between the authorities of the Union Bank and the Town Hall, that sum was allowed to stand between permanent improvement and what it remains to-day.

If that proposal had been carried out, there would have been an opportunity for the widening of Pitt Street. Then the A.M.P. Building was remodelled and added to, under the supervision of Mr. Scott, and once that was done, with the G.P.O. Building, the possibility of widening Pitt Street on that side was almost prevented. The Union Bank was remodelled at a cost of £60,000. Then came the purchase by the Commonwealth Bank of the site, at the corner of Martin Place and Pitt Street, and Mr. Kirkpatrick erected the Commonwealth Building. The moment that was done, that side of Pitt Street was effectively blocked, and one by one large buildings com-

menced to be added and old ones remodelled, until any question of reforming Pitt Street became out of the question, except at a huge colossal expense, or except by means of adopting the methods which the City Council can enforce, whereby they can compel any person who builds in the future to go back to the old building alignment, allowing the old buildings to remain, which would mean that you would have an irregular street. Thus early opportunities were missed.

Vickery's Buildings were considered to be among the best in Sydney. The Estate sold that block in sections, and piece by piece it has been remodelled, until there is very little left of the old structure. The old Empire Hotel has been remodelled in reinforced concrete, and you do not now recognise the old more or less small, humble and unpretentious building. Dalton House, which Mr. Scott remodelled, was one of the old time warehouses; it is now a fine substantial stone building. It has proved a veritable gold mine, with offices always let. Recently, too, Harrison, Jones & Devlin amalgamated with another of our big wool firms. Their big block of buildings was dealt with, and to-day there is a fine block of offices, which are practically all let, and a new shopping centre has been created in that vicinity.

Take the Commonwealth Bank and buildings of that type. The moment they are thrown open for letting purposes, owners of other buildings are compelled to remodel. Not many years ago, it was considered to be the correct things to put elevators and lavatories in the darkest corners. As the newer class of buildings was erected and the old ones of a better type remodelled, owners of old buildings were forced to let their offices at a lower rental, or to remodel.

During the last five or ten years we have had quite a surfeit of remodelling—the Atlas Company, the Cable Company, two buildings in O'Connell Street. One by one the old architectural monuments of Sydney are being remodelled, new fronts put in, or the buildings pulled down entirely. Most of the old buildings were of stone, and lent themselves to remodelling. In those days a new building or a remodelling scheme was considered to be a huge job. Nowadays a quarter of a million job is looked upon as a regular thing. It goes to show how development has expanded, and also how far the purchasing price of a sovereign has been reduced. A £2000 building of 1908 or 1910 will to-day cost nearly double that sum.

May I offer a note of criticism? It seems to me that with the advent of reinforced concrete, and the consequent facing of many of our buildings with stone, we are rather getting to the stage when our elevations are becoming too flat, and lacking too much in light and shade. We should remember the climate in which we live, and it appears to me that in a country such as ours, where we have a powerful sun, we do need to have buildings which lend themselves to light and shade, and also colour. Melbourne has been recognised for many years as a sombre city, because most of its buildings are brick with a stucco finish. Now concrete is coming to be used in N.S.W., we are largely getting to the stage of having a similar colour effect in Sydney. I believe we could very well afford to have something of the style of the South of Europe, France and Italy. I noticed to-night a gaudily painted tram, and I believe it is more cheerful to see something bright moving along our streets, not only in the frocking of our ladies, but in our trams. Latterly, there has been a trend in our domestic architecture towards



OLD SYDNEY

*Old Sydney from St. James' Spire.
A view showing Elizabeth and Phillip
Streets and Circular Quay before the
days of electricity and reinforced
concrete.*

stucco walls, but why not have them treated in white buff, cream pink or blue? In contrast with glazed chocolate tiles we are getting something which is certainly much more interesting, and as long as our architects are sure that their colour schemes are harmonious, I think there is a good deal to be said for the introduction of colour into our private and public buildings, and that without being tawdry.

The advent of concrete has led to a uniformity of treatment, which I think is going to make our city look more sombre than it should. Whether in public or private buildings, I for one deplore the outlook which would have us believe that one style of architecture is the only style than can be used in Australia—one, type, the only type. In domestic work, we know that many architects have been pinning their faith to the Georgian style. My late partner was keenly interested in it. When we remember that the domestic architecture of Sydney has been largely influenced by the contour and foreshores of our harbour, and the precipitous surfaces on which we have had to build, which have tested the capabilities of architects, it makes one feel that it is not always wise to try and ram down the throats of our clients one particular type as being suitable to the conditions of our climate. I think, without mentioning any buildings in particular, if you will just mentally look along the streets of Sydney, you will see half a dozen prominent expensive buildings which are so desperately flat and ordinary in treatment that there is nothing which attracts you. One knows that plain surfaces accentuate the beauty of good work. I hold, in a climate such as ours, which is very similar to that of the South of France and Italy, we could well afford to have something of the light and shade given to us by co-ordinating, and certainly from the point of view of colour as well.

There has been a desire to restrict heights, and to have a uniform sky-line. Quite a serious suggestion has been made that the buildings should all be of the one height. I hope that will never come. If you look back on the city from a proper point of view you will see here and there a dome and a spire. We can take a lesson from America. The whole tenor of their design has been to build up the sky-line. Our new Savings Bank will accommodate up to 4000 to 5000 people when all the offices are occupied. We must realise the difficulties which will have to be faced by those controlling our traffic, when all those people enter or depart from their offices. If we have to concentrate people on this narrow tongue of ours, we are not only up against architectural problems, but transport problems of a very grave nature.

It is interesting to note that in the Government service there has been a marked change in the treatment of various types of buildings. If you consider the schools being erected to-day, the hostels at Canberra, the Federal Parliament House buildings, you will find there is a style being introduced which was unknown a few years ago. Is it due to the fact that our architects are now receiving more careful training, are assimilating the lessons which that training gives to them, are travelling more, keeping in touch with journalism, or is it that the architect of the present day is like the Master Builder, shall I say, of a superior type than he was a few years ago? The facilities offered to students of to-day are certainly much greater than in years past. In our younger days we had to scratch round for information. It may be that all these things are tending to a better appreciation of what is beautiful in architecture. I think we are learning to under-

stand and appreciate more fully the climatic conditions of our country, and that seems to be giving us not a new style so much as a better application of the knowledge we possess. This improvement is not restricted to the City of Sydney. The influence of many of our city architects is being felt throughout the land, and that is re-acting to the advantage and the status of the profession.

Sydney, above all other cities in the Commonwealth, gives the best opportunities for seeing what the development has been. It comes in cycles. Every ten years there is a sudden sweep through the city. During last year no less than 14½ million pounds worth of buildings were erected in Sydney in the metropolitan area, practically as much as was done in all the other capital cities together. It makes one realise what opportunities are available for the profession, and the responsibilities we owe, not only to our clients, but to the country at large.

Commercially our buildings have grown until we have huge structures up to a quarter of a million. Ecclesiastically we have done nothing in N.S.W. for many years past. The authorities of St. Mary's Cathedral believe in designing a building for the future, and building each year just what they can afford. St. Mary's, in Sydney, and St. Patrick's, in Melbourne (now complete except for the spire) are two examples of architecture which have been made possible because of the farsightedness of those responsible for the architecture of the Roman Catholic Church. These Cathedrals will be monuments, not only to the Church, but to the States. Other Churches have not had quite the same opportunity, or perhaps not quite the same call made on them. The Anglican Cathedral in Sydney is inadequate for its purpose, yet the difficulty is to find a suitable site, and even if that were available, there is the colossal expense of putting up a suitable ecclesiastical structure, Gothic in character. In other denominations the buildings are mostly restricted to parish churches running up to about £10,000.

It is regrettable that at the University, where we did have the commencement of a fine pile of buildings, owing to the shortage of money, structures have had to be put up, which may be utilitarian, but which do not seem to fit in. In Cambridge and Oxford there is nothing incongruous. Everything has been built to fit in with the general scheme of things, and it is regrettable in the extreme that in connection with the University, the Government should be so parsimonious that we cannot perpetuate Dr. Blackett's work.

What is it that impels one to reverence on going into a beautiful fully designed Church, with its general grouping, lending an atmosphere of solemnity? The amphitheatre style may be comfortable, and everyone may be able to see and hear the parson, but I feel that it does not tend to that spirit of worship which one likes to see associated with our churches. Such buildings should be erected not merely from a utilitarian point of view. I hope in the new Law Courts we will have a building worthy of the City, and not one of four plain brick walls, which may serve the purpose, but would be no credit to our State. If we could imbibe something of the spirit of our friends of the Roman Catholic Church, we would leave behind us monuments for posterity. We would not care what it cost ultimately, but we would design properly in the first place. I think that is a spirit which ought not to be lost in regard to our Government Institutions and large public buildings.

It is regrettable that our Government offices do so much work which literally belongs to the practising architect outside. The duty of the Government is to govern. In connection with hospital work, N.S.W. is the only State in Australasia, including New Zealand, where private architects are debarred from doing hospital work. In every other State the Government encourages private architects to do the work. While it is recognised that there is a large amount of work that is legitimately the work of our Commonwealth and State Governments, there are buildings they have to deal with which are so important that it is desirable that they should be thrown open to public competition and the brains of the whole architectural

community. Who can say that we get the best results by giving the work to one architect? Who will say, when it comes to some of our big Government buildings or schools that there should not be competition? I think there should be. The Under Secretaries desire to build up their own departments, and I am afraid public considerations have to go. If the Government subsidises a hospital, gives £ for £, that pre-supposes that the public are subscribing the other half. Surely it is fair that the public should have a say in how that building should be erected, and it should not be left wholly to the Government. This is a perennial subject, and we stress it, not because of our own private interests, but because we feel the interests of the State should be conserved.



Messrs. David Jones Stores as they will appear on completion.

CHRISTIAN BROTHERS' CHAPEL AT ST. MARY'S STRATHFIELD



The High Altar at the Christian Brothers' Novitiate Chapel, Mount St. Mary, Strathfield, executed from designs of Hennessy, Hennessy, Keessing & Co. by Anslom Odling & Sons, Ltd., presented the problem of adopting a white marble Gothic altar from an existing Gothic Chapel to a Romanesque Chapel, where the requirements of the Christian Brothers made Celtic detail especially suitable.

In order to do this the proportion of the Table was altered by the original single-end columns being coupled and, except for the original tabernacle, the remainder of the work above the Altar table was replaced by a new reredos.

This reredos rises 8 feet above the level of the Altar table, a niche and canopy occupies the centre for exposition purposes. The canopy, surmounted by a Celtic cross, is flanked by two panels moulded and deeply incised in the marble. They have a finely chiselled design of intricate Celtic interlaced work of writhing animal forms, full of the old Christian symbolism.

These panels are enriched by a background of rough gold, which gives to the whole Sanctuary that beauty and distinction one looks for there.



INSTITUTE OF ARCHITECTS. CORRESPONDENCE

Sindacato Architetti,
Di Roma, Provincia, Rome.
12th Nov., 1925.

Dear Colleagues,—I beg to inform you that the "Sindacato Nazionale Architetti" (Architects' National Syndicate) has instituted a special Section for finding positions abroad to Italian architects.

There are available, at present, architects with diplomas conferred upon them by Academies of fine arts, clever projectors and drawers, specialists in building, decorating, furnishing, flooring, wrought iron, with long experience in their branch.

I make a warm appeal to your spirit of comradeship in order that you will be so kind to help in placing them initiating thus an action of fraternal international assistance among lovers of art.

I pray you to consider me at your disposition for everything that will be useful to you from our Italy.

With my best thanks for what you shall do in this matter, please accept, dear colleague, my most kind regards.

Yours faithfully, G. FINACCIO.

Macleay House,
16 College Street,
Sydney.

4th December, 1925.

The Committee of the Sydney Division of The Institute of Engineers, Australia, requests the honor of the presence of the president and members of the Institute of Architects of N.S.W. at a Special General Meeting to be held at the King's Hall, Hunter Street, Sydney, on Wednesday, 27th January, 1926, at 7.45 p.m., when a lecture entitled "Industrial Research and Standardisation" by Sir Frank Heath, K.B.E., will be delivered.

R.S.V.P.

Hon. Secretary I.E. Aust.,
16 College St., Sydney.



Messrs. David Jones' Store—The Sales Floor.

THE ARCHITECTURE OF THE CITY DEPARTMENTAL STORE

THE Architecture of a Departmental Store may be likened to that of the Architecture of a liner. A graceful form must be created, one that will give pleasure to those beholding it, and at the same time have within it a lay-out providing for the efficient administration and working areas of a large body of people carrying out multifarious duties.

A Departmental Store must externally express its purpose, for the first great principle that must be sought and required in architecture is truth. In Architecture—where science is allied with art—not merely materials must be sound and capable of supporting one another, but their relative positions must be appropriate, and their combination must express the purpose of the structure.

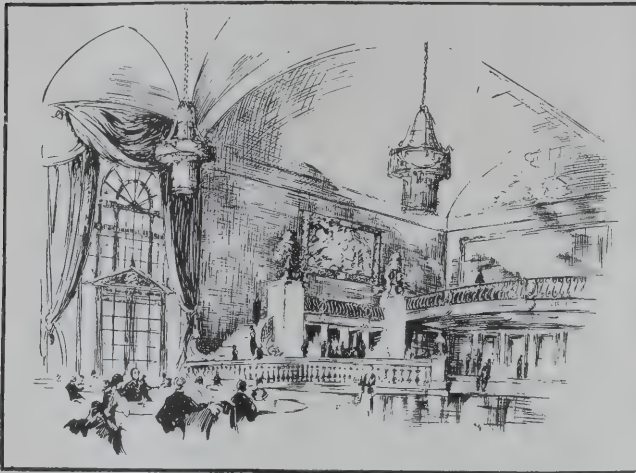
In Australia we have resorted to an overhanging construction, the cantilever awning above the pavement level to protect pedestrians from rain and sun—a permanent type of protection found in no other city in the world. The embodying of such a piece of construction as this naturally affects our architectural treatment of a store.

Most Commercial Retail Houses desire uppermost one feature in a building—much open space for the display of goods. It is this requirement that prevents architects from being truthful and they are helped in their untruthfulness by the Structural Engineer. Thus large voids have to be spanned, and this is usually done at awning level and the awning just adds that break which would cause untruthfulness to be more pronounced.

Conditions are untruthful that make a building appear to be standing on a sheet of plate glass, as if it were suspended in the air, but Directors will have it so and the awning helps us to conceal the fact. Above the cantilever awning the building can express its purpose by the size of its voids, the disposition of its masses, and otherwise.

The Departmental Store may be looked upon as a large Warehouse in which goods are stored forming a storehouse of wealth to be disposed of to people entering its thresholds.

The internal arrangements of a Store must be suitable both from a structural and retail business point of view. Bays between columns must be



The Restaurant in the Departmental Store.

of such a size that the span of beams is economical and effective, and the spacing of columns affecting floor area as little as possible. Commercial aspect first, structural second is the order of all internal considerations from the Directors' point of view. This is natural, for the building is essentially for business, and the Structural Engineer must place all structural possibilities at the feet of the Store Owner.

Large uninterrupted Bays are the main structural considerations, coupled with the spanning of large external voids in the facade, voids over which heavily loaded piers are often centralised. What piers have to extend below the awning are usually required to be "faced" with glass for every available space for display is valuable.

Modern store requirements show that space for the display of merchandise must be gained at all costs. After the structural considerations come those dealing with the arrangements for the transport of people through the store, for this modern building—this bridge on end with passenger cars running through it, must have many small bridges within it, through which lifts must rise to transport the customers.



The Vaulted Ceiling as applied to the Departmental Store.

The placing of lifts has given the designers of Stores much hard thinking—some favour centralisation—others suggest their erection at the extreme end of the Store as is being done in the case of Messrs. David Jones' new store. Others recommend escalators in preference to lifts.

The entrances—the most satisfactory position for these has varied throughout the years, but modern ideas do not favour corner entrances, but those in a part of each front.

The arrangements for Staff Quarters, Utility Areas, Workrooms, Lavatory Blocks, Departmental Areas, all play their important part in the consideration of planning, so that some hundreds of people may work and visit the Store efficiently and in comfort. The Liner, like the Store, houses workers, visitors and merchandise, and it must be designed to serve each efficiently. Both have to show a profit to their owners for each has its own voyage to make.

It is the thought in design and construction by Architects and Engineers that is going to make our new City Stores serve their useful purpose for both Owner and the Community.

THE NEW DEPARTMENTAL STORE FOR MESSRS. DAVID JONES LTD.

I. A DETAILED DESCRIPTION OF THE STORE

During the past few months that northern area of Hyde Park known as St. James, has seen the preliminary growth of a portion of our city that will some day become one of its most important centres. The St. James Station will soon be erected for the Underground Railway Service and this alone will, in a great measure, help this centre to become the "Trafalgar Square" of Sydney. St. James will become the focal point for many thousands of people that daily enter the city area to carry on their business. Underground electric trains will run to this point from all parts of the suburban areas, connections to the Northern Suburbs from here will be made by way of Circular Quay.

The realisation of this fact by one of our largest Commercial Houses is seen at once on walking along Castlereagh Street, up Market Street, thence along Elizabeth Street to King Street. For the site bounded by these routes, formerly the site of the old Sydney Girls' High School, has now become the birthplace of what will soon become one of our largest Retail "Cathedrals of Commerce"—the New Departmental Store of Messrs. David Jones Ltd. The year 1838 saw the establishment of this House, which is now situated in George Street, by the G.P.O.—the great uprooting that will, in 1927 take place, will, it is felt, not be detrimental to business interests, but will increase them, and couple with them a great feeling of civic pride.

Architecture, unfortunately, has in past years not been coupled with Commerce, but right thinking people of all the cultured lands of the world have in the few years that are gone, begun to appreciate a fact so well known to our forefathers—Architecture is an expression of our age. Our age is a commercial one and so Commercial houses are feeling that Architecture is not merely ornament added to an edifice erected only to house garments, foodstuffs and some of the luxuries of life. Commerce and Architecture are interwoven, for Architecture can express that which brings about its possibility of creation—Commerce. And so we have the re-birth of a Departmental Store in a new centre on the ever changing face of our city. This new Store for Messrs. David Jones Ltd. is fast making its presence felt as a piece of construction to interest those who traverse this region.

THE BUILDING IS GENERAL.

On 17th July of 1925 the contract was signed for the erection of the Store and the Associate Architects, Messrs. Budden & Mackellar, have thus launched what will become in the next few months a monolith of Concrete and Steel.

The building operations are being carried out by John Grant & Sons Ltd., Builders and Contractors of this City.

The excavation for the building was carried out in 1924 by a separate Contract—Messrs. Stuart Bros. being responsible for this portion of the work.

The photos taken in 1924 show the excavating operations which necessitated much use of pneumatic drills

and channelling machines to remove the sandstone rock that lay under the 10 feet of clay overburden.

The construction of the store is dealt with in detail in another section of the Journal, but it may be here mentioned that the Store is structurally of Reinforced Concrete, with a steel frame internal portion up to the second floor.

The Architects' elevation gives promise of something expressive of purpose, being simple in treatment and devoid of much ornament.

A Modern Store is essentially a building where goods are received for sale and where they are stored prior to purchase, thus the design must be an appropriate one.

In the lay-out of a departmental store such as this, covering an area of site of 40,000 square feet, much thought has necessarily been given to the many separate requirements of each individual department, but one can hardly be decided upon without considering its relation to the other.

The floor area is 265 feet by 150 feet and the bays or sections between columns in the internal portion of the building are 29ft. 6in. x 25ft., while the central bays are 29ft. 6in. x 26ft. 6in.

A system of floor construction has been adopted that will ensure an entirely flat ceiling in each bay, giving a good lighting effect.

The number of floors in the building are devoted to Sales, Workrooms, etc.

	Height.
Basement	12ft. 11in.
Lower Ground	14ft. 9in.
Ground	20ft.
First	16ft.
Second	15ft.
Third	15ft.
Fourth	15ft.
Fifth	15ft.
Sixth	15ft.
Seventh	23ft. 6in.

The treatment of the Ground Floor will be that of the modern interpretation of Italian Renaissance, representing mellow walls of Italian Stone in harmony with wrought iron stair rails and bronze grilles.

The complete floor is to be paved in genuine Travertine, and furnished with simple but modern walnut finished shop fittings, these fittings being no higher than 56 inches, except near walls, thus ensuring an unobstructed view.

Much plate glass will form part of the fixtures and counters, to be in conformity with modern shopping interiors.

The Ground Floor and Lower Ground Floor will be paved with Travertine, with slabs 20in. x 10in. Travertine has not been seen in this country until Messrs. David Jones introduced it for their new store. The Marble has a rare honeycombed surface and is of cream colour; it is being imported direct from Italy.



*Messrs. David Jones' New Store.
The First Steel Stanchion erected on the Site.
7th September, 1925. (No. 73.)*



*The Site, looking towards Market Street.
28th May, 1924.*



*The Site, looking towards Market Street.
21st July, 1925.*



*Rock Excavation on Northern Boundary.
14th May, 1924.*



*Steel Construction at Lower Ground Floor.
23rd November, 1925.*

Italian Travertine is a porous calcareous deposit from springs, which has hardened on exposure and was much used in Italy in ancient times for building purposes. It is greatly used in U.S.A.

The depth of the Basement below street level is about 30 feet and between this floor and the Ground Floor is situated the Lower Ground Floor, to be used as a Sales Floor and will be paved with Travertine Marble as for the Ground Floor.

A feature of the Lower Ground Sales Floor is the Day-light Sales Windows—situated as the most Northerly show windows on both Castlereagh and Elizabeth Sts. These show windows will have glass floors, thus allowing daylight into the Lower Ground Floor, enabling purchases of material to be made under daylight conditions, also modern daylight lamps will be used throughout.

There are 24 large show windows around the building, while Display Cases will be placed on intermediate piers between the various show windows.

THE PLAN:

The planning of the Store is a unique one from the point of view of spaciousness for retail trade and area devoted to administration.

There are 32 internal columns dividing the store into 45 bays, five of the central ones being 29ft. 6in. x 26ft. 6in.—these being the largest bays throughout, yet erected in any departmental store in the world.

The Service portion of the store is divided from the administrative section by a bank of 12 passenger Lifts across the building, 30 feet from the Northern Boundary, thus giving a Utility Space of this width right up the building. Thus these passenger lifts for handling all traffic are situated at the Northern end of the Store and will be, at Lower Ground Floor level, reached from the entrances at Market, Castlereagh and Elizabeth Streets.

This arrangement of lifts is that based upon certain experience in U.S.A. that has led to a placing of the lift bank at the end of the store, giving a clear central area and better conditions from a selling point of view. No corner entrances are provided, the south, east and west entrances being situated in the centre of the fronts to Market, Elizabeth and Castlereagh Streets respectively, the Market Street entrance being level with the pavement.

The Utility Space at the Northern End of site between the Passenger lifts and the Northern Boundary, rises to a height of about 200 feet above the pavement, about 60 feet above the main building to accommodate the Ventilating Machinery, Lift Machinery, Refrigeration Plant, Telephone Exchange and the Water Storage tanks for Service and Sprinkler purposes. The various lavatories for staff and storage space are contained in this area, which is served by three goods lifts and three staff lifts. The General Staff entrance is in Castlereagh Street and the Goods entrance in Elizabeth Street.

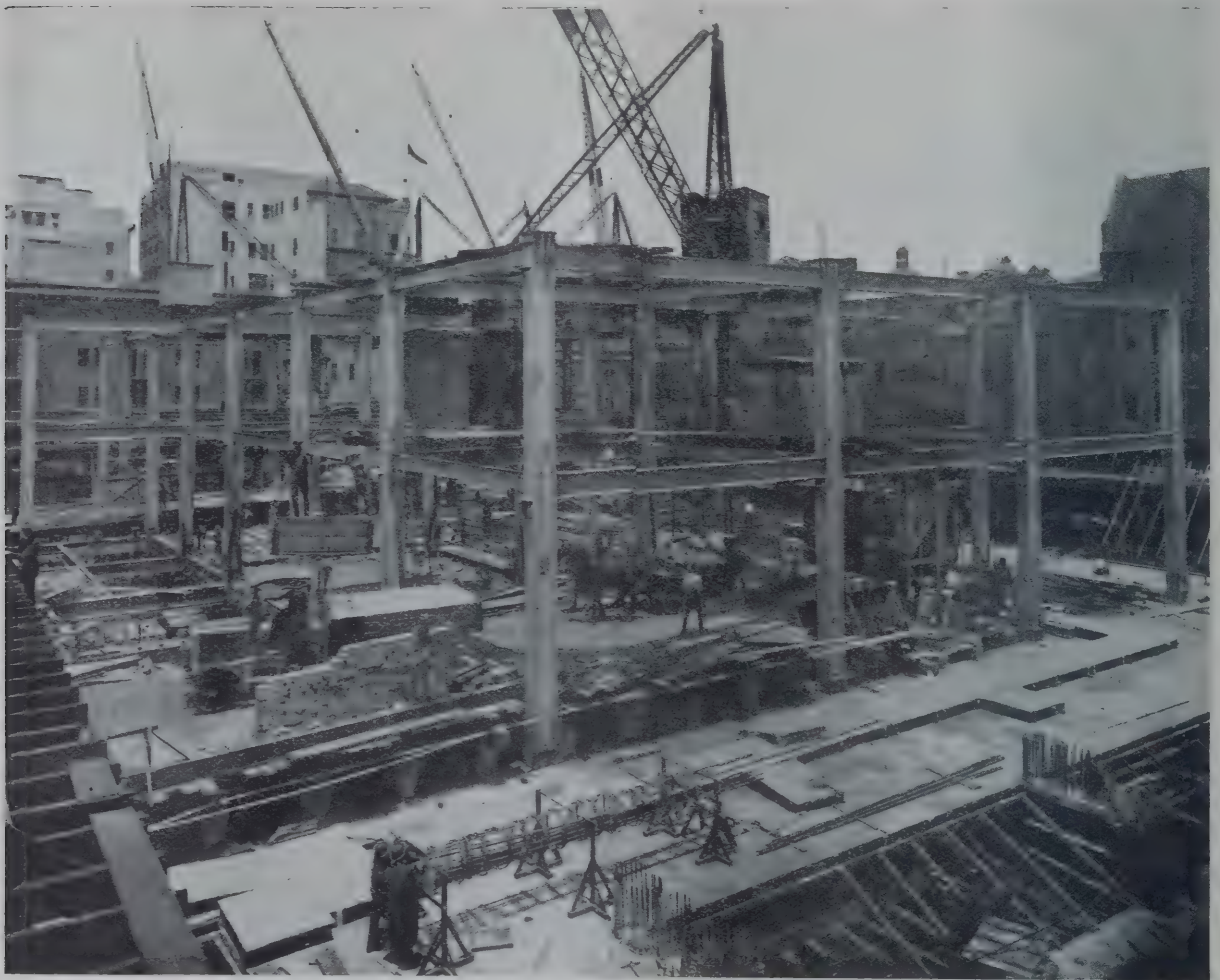
Entrance from Elizabeth Street will be made by wagon into the Cart Dock in this Utility Space and goods loaded on to a platform. In addition to this Cart Dock area there is a vehicle lift of such a capacity that it can receive a delivery van and transport it to the Basement to receive or discharge goods.

The Basement area will contain the Despatch department, which will include Sorting and packing arrangements for Goods received from the various Sales floors by Spiral chutes and conveyor belts.

Other portions of this area are devoted to Ventilating Machinery, Painters' and Carpenters' Shops, Strong Room, Switchboard Room, Boiler and Incineration Plant for the rubbish, delivered to the Basement by Trash Chutes and also a stand-by Electrical Plant to be used in the event of the breakdown of the Electric Light Mains.

Goods will be received from the various sales floors and sorted for delivery, being collected by van which can make a passage to the various platforms, load up and return to the street level by way of the Vehicle Lift, being taken up a distance of 30 odd feet to Elizabeth Street. The Basement Floor is entirely a Despatch and Working Space, the other floor intermediate between this floor and Ground Floor is the Lower Ground Floor, a Floor devoted entirely to Sales. The Lower Ground Floor is reached by stairs at all street entrances or by passenger lift.

The Ground Floor will be a Sales Floor and will be paved with Travertine. Fittings will be in walnut. The other sales floors are: 1st, 2nd, and 3rd, while the 4th is allotted to Administration, Office Staff, Country Orders, etc. Fifth to be workroom; Sixth to be for reserve purposes; Seventh to be the Restaurant Floor. The Seventh Floor is 115 feet odd from Pavement level and from this Restaurant floor an extensive view will be obtained, both across Hyde Park and down the Harbour across the Domain.



The Site, looking towards Market Street, December, 1925.

2. THE CONSTRUCTION OF THE STORE

The Restaurant will be capable of seating 1200 people and will include a special Grill Room for men. A service kitchen is provided for and a mezzanine portion towards the North accommodates the Staff Cafeteria and Bakery.

There is provision for a future storey to the building, but at present the Restaurant floor is the top floor of the store. The flat roof over offers ample recreation area for the staff.

A fine copper awning will surround the whole building over the street pavement.

The month of September may be considered as the birth-month of the store, for it was the 7th day of this month on which the first steel stanchion was erected. This stanchion, at the North East corner of the internal area of the building, which has for its reference No. 73, is a compound box section composed of 2-20in. x 7½in. @ 89 I beams and 8 plates 2½in. thick, 4 on each flange and weighs in all 7 tons. Each

lower stanchion length is of approximately 30 feet, extending from its base plate 1ft. 3in. below Basement Floor Level to the Ground Floor. At the Ground Floor a spliced connection occurs, for the upper stanchion lengths extend from this level to the Second Floor, which is the termination level of the internal structural steelwork of the building.

The Construction of the Store is a composite one, that is, both structural steel and reinforced concrete form the two materials of Construction.

The Utility Space is entirely of Reinforced Concrete from the Basement to the Water Storage tanks 192 feet above the Pavement. The Internal portion is of structural steel up to the Second Floor level, above this all construction is reinforced concrete. All external columns along Castlereagh, Market and Elizabeth Streets are of Reinforced Concrete—these are connected to the internal steel portion by steel beams, up to the Second Floor level.

The reason for the changed form of construction internally was to have the smallest possible area taken up by Columns, on the Lower Ground, Ground and First Floors, where every available foot of floor area is required for sales purposes.

If structural steel had not been here adopted, the size of Columns in Reinforced Concrete would have been 40in. diameter, whereas at present, by the use of structural steel, a size of 23in. overall is the maximum, with the allowance for concrete to give fire protection.

Composite construction such as these requires much consideration of connections between the two materials—steel beams connect to Concrete Columns, concrete beams connect to steel beams and columns and Concrete Columns connect to Steel Columns.

The connection of the 34in. diameter R.C. Columns at Second Floor level to the steel stanchions below is made by means of a cast steel cap of an average thickness of 5in. and the diameter is that of the R.C. Column. This cap is depressed to a depth of 1in., leaving a 1in. lip around its circumference, and it is on the depressed portion that the reinforcement rods of the Reinforced Concrete Column rest.

The cap is supported on and bolted to a machined stanchion cap plate, from which the load is transmitted to the stanchion by means of channel sections, angles and gusset plates.

The bases of the steel stanchions are of the built up type and consist of a double Base Plate, made up of two 3in. plates. These Steel Bases rest on Concrete Bases, composed of 1:1½:3 mixture of concrete—the sizes of bases vary with the loads; the heaviest load on the concrete bases for the steel stanchions is 1,900,000lbs. or about 850 tons, and the size of base is 4ft. 9in. by 4ft. 9in. and 2ft. 6in. thick.

The steel bases were supported on steel wedges and a 1:1½ mixture of grout floated underneath. No holding down bolts were used. The concrete bases are not reinforced and rest on solid sandstone rock, tested to a depth of 7ft., by trial bore hole.

This foundation of sandstone was found to be generally of a very satisfactory nature and very few faults whatever were found.

The Reinforced Concrete Columns externally rest on similar bases, splice bars forming the junction between the base and the Column Shaft. The very deep excavation made for Basement purposes made foundation conditions most satisfactory.

Certain seepage that is likely to occur around the site is carried away by an extensive drainage system—weep drains extending to each face of the building below the Basement Floor.

All Concrete Columns are reinforced by vertical bars and spiral hooping and are of a rich mixture of concrete, viz., 1:1:2. In the Utility Area, large R.C. Columns are spaced between the Elevators and carry very heavy loads from the upper part of the building, such as machinery rooms, tanks, etc.

There are in all, 76 Columns in the Store, 27 are external R.C. Columns along Castlereagh, Market and Elizabeth Streets, while there are 34 internally, of which all to the Second Floor are of structural steel, the remainder are Lift and Other Columns in the

Utility Space. The reinforced concrete floor framing in the Utility Space is of the Slab and Girder type, with 5in. Slabs.

FLOOR CONSTRUCTION.

The spacing of the internal columns of the building were made of such a size as to give the greatest open spaces possible under the best structural conditions. The sizes of bays is 25ft. x 29ft. 6in., while there are three central internal bays, 26ft. 6in. x 29ft. 6in.

The requirements of the store from a lighting and general effect point of view were such that no intermediate beams should be placed in the bays, so that each bay, framed around by beams from column to column should be a flat area.

To enable this feature to be embodied in the construction, consideration of the various types of floor construction were made by the designing structural engineers and finally the ribbed floor was selected as being the most suitable structurally to meet with the requirements of the owners.

A single ribbed reinforced concrete floor of this construction has not before been used in this country for a building of this magnitude.

The single ribbed reinforced concrete floor consists of a series of ribs spaced at close intervals across the span of a bay. The slab between each rib is thus a very thin one and in this case is 2½in. thick. Spacing of ribs is at 20 inches and they are 12½in. from finished concrete slab to the soffit of the rib, which is 5in. thick at this point.

Except in the Basement these ribs will not be seen as they will be hidden by a false ceiling.

The question of formwork or centring for these ribbed floors consists of "pan" type centring of timber faced with sheet metal. Each "pan" is as shown by the illustration and is easily removed after it has remained in position for the requisite period. A good surface has resulted after their removal and very little damage has been caused to the "pans" themselves.

There are three "pans" per span of bay, and the "pans" may be used from floor to floor throughout the construction. The reinforcement of the ribs consists of two or three ¾in., ¾in. or 1in. bars, according to the span or loading of the floor bay.

CONSTRUCTION OPERATIONS.

The operations of concreting are being carried out from two Mixing Plants, situated on the centreline of the building and at North and South Central areas.

Hoist Towers convey the mixed material to the floors under construction from the Mixing Machines situated at Basement level. Both mixing plants are capable of giving an output of 10 cu. feet per batch and each batch in the hoist bucket passes up the tower every 40 to 50 seconds.

The storage of the loose materials of metal aggregate and sand is being carried out by means not used greatly in Sydney in city building operations. To obviate the necessity of wheeling material to the concrete mixers from heaps of metal or sand, bunkers have been installed, which can be filled directly from the tip waggons entering the site.

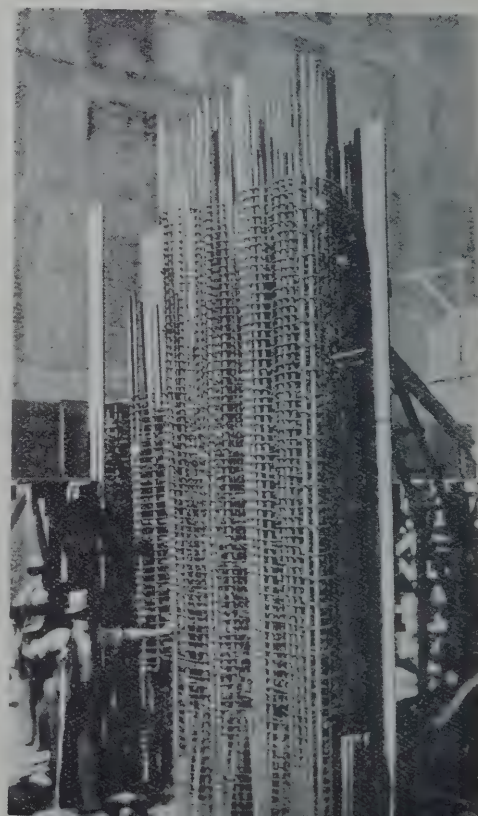
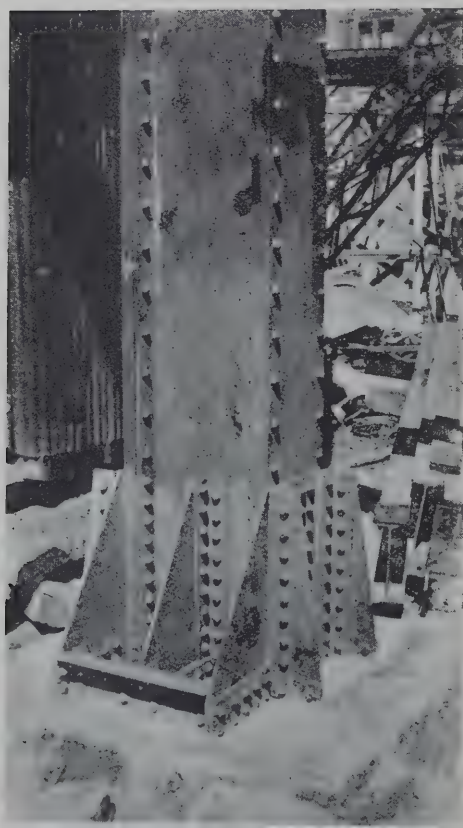
These bunkers have a capacity of approximately 200 tons, 100 tons respectively, and the cement bunker, 25

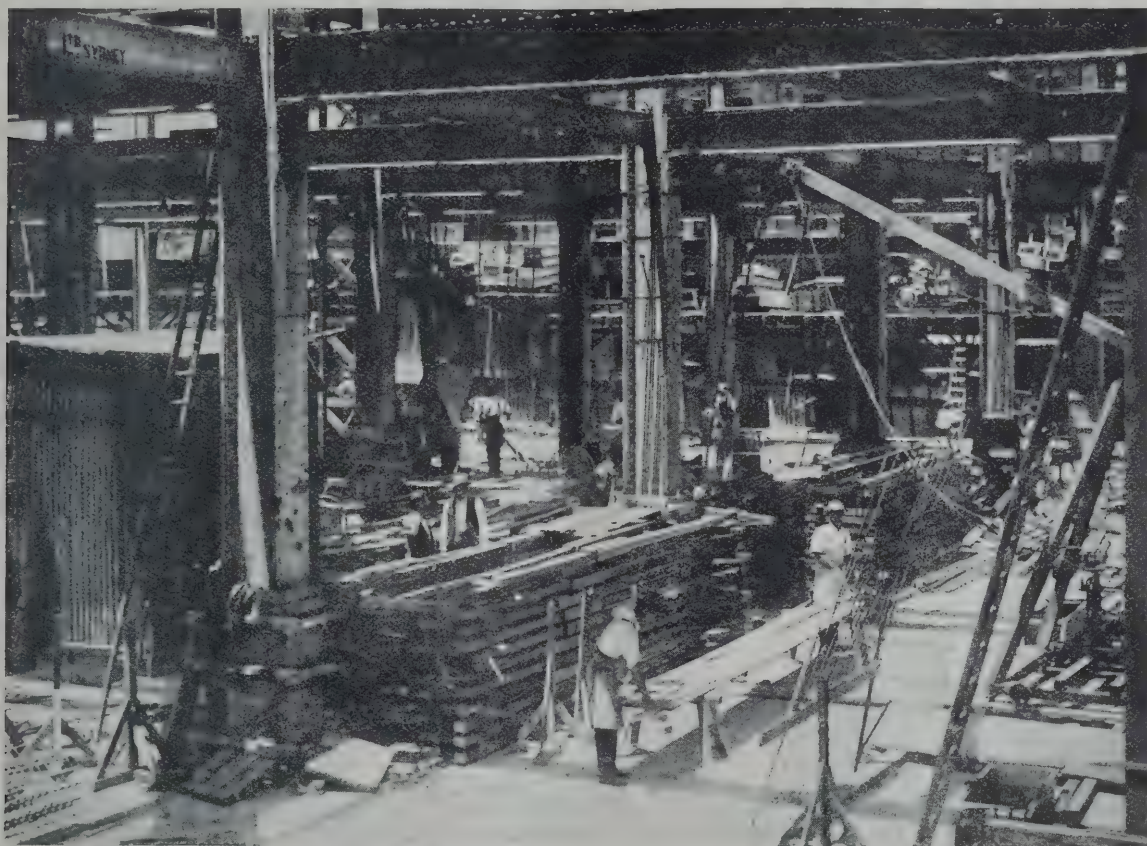


(Above)
Utility Space, showing
Concrete Construction
at Cart Dock Entrance.
December, 1925.

(At Right)
Steel Reinforcement for
Reinforced Concrete Column
in Utility Space.

(At Left)
A Typical Built Up Type
Base to Steel Stanchion.

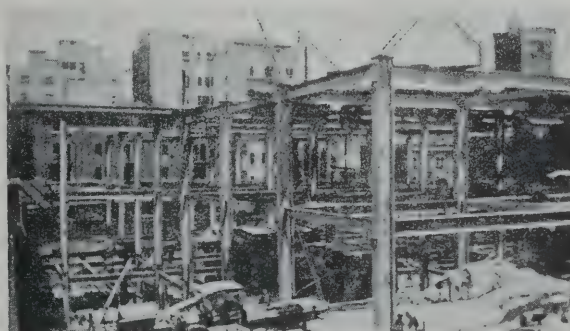




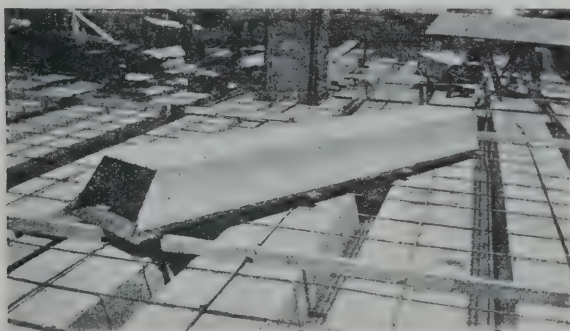
Steelwork of the Internal Portion of the Building at Ground Floor. December, 1925.



The Site from Castlereagh Street. December, 1925...



Steelwork at Ground Floor. November, 1925.



Centring for Ribbed Floors. Typical "Pan" Type Form.

tons; these bunkers are connected directly to the gauge hoppers just outside the mixer, which is fed from these hoppers on the release of a gate.

The tops of bunkers are fitted with a grid and are at street level and waggons of material entering either plant entrance at Elizabeth Street can drive in and discharge through this grid directly into the bunkers—thus loose material becomes mixed material with the minimum of handling.

The hoist towers are extended as the operations proceed upwards and the discharge hopper at the various floor levels is connected by voice pipe to the mixing plant below.

From the discharge hopper material is wheeled to the area being poured by "rickshaws" or two-wheeled barrows.

OPERATIONS TO DECEMBER, 1925.

Up to the end of December two complete floors—the Lower Ground and Ground Floors—have been constructed and in addition a Mezzanine Floor over the whole area of the Utility Space. The amount of material used in pouring the Ground Floor alone and the Columns supporting it above the Lower Ground Floor, amounted to nearly 2000 tons, of which 736 tons was sand, 1152 tons metal, and 402 tons cement.

The construction of the Ground Floor necessitated a large amount of detail work in setting out on account of the numerous show windows to be constructed.

Of the Structural Steelwork, about 800 tons has been erected; of this amount 412 tons was made up of stanchions, the remainder being secondary framing—this amount of 800 tons was erected between 7th September, 1925, and 17th November, 1925. The first stanchion length was erected on 7th September, 1925, and the last on 17th November, 1925. The total tonnage of structural steel is about 900 tons and that of steel reinforcement for the concrete construction, 1660 tons.

The dimensions of the store site are 253 feet by 152 feet, and the main portion reaches to the building limit a height of 150 odd feet above the pavement, and the rear portion devoted to the Utility Space is almost 200 feet above the pavement. Thus it will be seen that a large amount of material has yet to be erected, but it is expected that by about August, 1926, the skeleton of reinforced concrete and steel will be completed, for its full height.

The Associate Structural Engineers responsible for the design of the Reinforced Concrete Construction are Messrs. C. A. Reed, M.I. Struct. E. and A. S. Macdonald, B.Sc., A.M.I.C.E., while the Supervising Structural Engineer is Mr. N. Warren-Waterhouse, B.E., A.M.I. Struct. E.



Messrs. David Jones Ltd., Elevator Entrances.

Associate Architects, H. F. Budden & C. H. MacKellar.

3. THE EQUIPMENT OF THE STORE

In a modern Departmental Store such as this, there must be a large amount of Mechanical and Electrical Equipment to provide the necessary service for the sale of merchandise, and the efficient fire protection and health consideration for the goods and people within the building.

Various items of the equipment of the store will be: (1) Electric Elevators; (2) Electric Lighting Installation; (3) Mechanical Ventilation System; (4) Cash Tube System; (5) Sprinkler Installation; (6) Spiral Despatch Chutes; besides miscellaneous Pumping Machinery for Water Supply, Boiler Plant for Hot Water Supply, Refrigeration Plant, Baking Ovens, Incinerator Plant for the disposal of refuse, Stand-by Electric Generating Plant, and miscellaneous conveyor belts, pumps and workshop machinery in the basement of the store.

THE ELECTRIC ELEVATORS devoted to passenger service will be 12 in number, and as previously mentioned are situated at the northern end of the store, so that customers requiring the elevator service will pass through the body of the store.

These elevators will be of special construction, embodying the latest features of control and operation as used in the large stores all over the world.

They will all be controlled from the Despatch Station on the Ground Floor and will serve all floors above the Ground Floor and also the lower ground below the street level.

The "Department Store Control" has been designed to give smooth and rapid service from floor to floor with pneumatically operated doors, having a wide opening for easy entrance and exit of passengers.

The winding engines will be of the "Gearless" type.

All lifts will be fitted with Micro-Drive Self Levelling Device to enable them to stop automatically perfectly level with the floor. This Micro Drive apparatus will be contained in the main motor machinery.

There will be many features in the elevator equipment that are new to this country, such as the special type of pneumatic door opening apparatus, Multi Voltage Control, etc.

All lifts will be capable of running an express service to any floor, so that in the event of a sale taking place on a particular floor, the car will be automatically reversed for the downward trip.

The speed of the passenger lifts will be 400 F.P.M. and the car capacity 16 persons.

The three staff elevators for conveying the staff entering at the northern end of the Castlereagh Street front will also travel at a speed of 400 F.P.M. and with 16 persons, and the three goods lifts at 350 F.P.M.—each goods lift having a capacity of 3500lbs.

Some of the cars in this group will be capable of operation either by car switch or automatic push button control.

The vehicle lift will be 8ft. 6in. x 18ft. in size, and will have a load carrying capacity of 6000lbs. at a speed of 100 F.P.M. The vehicle lift will receive

the waggons at the cart dock entrance at the northern end of the Elizabeth Street front, and transport them to the Despatching Department in the basement.

This lift will also be of the Micro Drive pattern, permitting cars to drive on and off the platform quickly, smoothly and without jolting.

All lift machinery, except that for the vehicle lift will be situated at the top of the Utility Space in a room the whole width of the Utility Space—the machinery includes a vast quantity of miscellaneous gear, in addition to generators and motors, and will be one of the largest equipments of its kind in the world.

In addition to this elevator system there is provision for eight electric dumbwaiters located at various points in the building for transport of goods from different departments throughout the height of the building.

The whole of the elevator and electric dumbwaiter equipment will be supplied by Waygood-Otis (Aust.), Pty., Ltd.

ELECTRIC LIGHT INSTALLATION. The provision for the illumination of the building will naturally be an extensive one and much power will be required for this purpose. Supply is from the City Council Mains, taken off at two points, and large main switch boards will be situated in the basement for controlling this distribution of electrical energy. The laying of conduits for wiring will have to be carried out for many months before the building will be ready to receive the variety of electrical fittings that will be required to illuminate the store. The conduits throughout the building are being laid in the upper surface of the reinforced concrete floors and will be buried in the floor coverings over them. A Stand-by Electrical Generating Plant will be installed to be brought into service for various circuits in the event of failure of the Supply Mains.

THE VENTILATION SYSTEM. Various sections of the building will be mechanically ventilated, providing a fresh air supply to the Basement, Lower Ground, and Ground Floors and the exhaustion of used air from Basement, Lower Ground Floor and Ground Floor and exhaust from various Lavatories in the Utility Space, Kitchen and Cash Tube Delivery Desks.

The Fresh Air Service to the Basement, Lower Ground and Ground Floors will involve the supply of 40,000, 60,000 and 60,000 cubic feet per minute in each case respectively, while the *Exhaust Air* various amounts will have to be made.

From Basement, Ground Floor and Lavatories 40,000 cubic feet per minute; from Lower Ground Floor, 50,000 cubic feet per minute; from Kitchen, 20,000 cubic feet per minute; and other varying amounts.

The whole of the air entering the building by mechanical means will be efficiently washed by means of spray washers and passed through a series of plates to remove all suspended moisture.

Fresh air for the Basement and Lower Ground Floor will be obtained from above the awning on Castlereagh and Elizabeth Streets respectively and taken by duct to the Basement preparatory to washing and being directed to the Fan for delivery to various points in the floors served.

For the Ground Floor, fresh air will be obtained from two sources in equal volume of 30,000 cubic feet per minute each. The General Exhaust will be at the Light Area at North End of Store in Utility Space, this being used as an Upcast Duct.

At or near the top of the Duct two units of Fan equipment will be installed.

CASH TUBE SYSTEM. An extensive Cash Tube System is to be provided and tubes are being laid in the concrete column casing as the work proceeds. Various stations will be installed on the Sales Floors and the Cash Desk Delivery Station will be situated in the Basement of the building. On the Lower Ground Floor there are 16 Stations, on the Ground Floor, 25 Sales Stations, and two special service lines and on the 1st Floor and 2nd Floor and 3rd Floor, 22 Stations, 12 Stations, and 21 Stations respectively, while the 4th and 7th Floors have certain special Stations. The Cash Desks are of the singled sided "Separating" Belt type.

The Cash Tube System throughout is being installed by the Lamson Store Service Co.

FIRE SPRINKLER INSTALLATION. The building will be adequately protected from fire by a Sprinkler Installation—the number of sprinkler heads will be about 4,000 odd, and the type of Sprinkler to be used is the "Newton Witter," which has not been used in buildings in this city hitherto. Two Sprinkler Water Storage Tanks, of 7,500 gallons capacity, at the top of the building will be used as a reserve supply.

The "Newton-Witter" Automatic Sprinkler is manufactured by the Newton-Witter Engineering Co of London. The installation will be divided into three separate sections, each section will be controlled by a stop valve and the whole will be connected to the City Water Mains.

A 6in. centrifugal pump, motor driven, with automatic controls will be brought into operation for the ex-

tinguishing of a fire immediately the pressure in system falls below its specific value.

Special Fire Brigade connection will be made at road level on both Castlereagh and Elizabeth Streets, to enable, in the event of fire, the Brigade to connect up their own pumping apparatus, and feed the entire sprinkler installation.

The installation is the largest single installation of its kind in Australia.

The Fire Protection Engineer for the installation is Mr. Noel Murray of Melbourne, who is represented in Sydney by Mr. W. R. Chisholm.

DESPATCH SYSTEM. The system of despatching goods from the various sales floors to the Basement for packing and out Delivery will be carried out by means of steel spiral chutes into which goods can be passed for automatic delivery to the Basement. These spiral conveyors will convey parcels to the Basement, where they will be passed on to a system of movable belts further conveying them to the packing tables. From these tables they are routed by means of bins and then placed on the delivery vans waiting to leave by the special Vehicle Elevator for the street level above. This scheme ensures a speedy delivery of all purchases and the delays resulting from a hand to hand method are eliminated.

And thus it will be seen that in a building of this Commercial class a vast amount of equipment must be provided, in addition to the foregoing, Kitchen equipment for the kitchen serving the large Restaurant, pumping gear, Incinerator, etc., and much miscellaneous gear form no mean part of the modern Service Store.

The Consulting Engineers for the Electrical Equipment are Messrs. Julius, Poole & Gibson, Consulting Engineers of this city, while Mr. W. D. Watson, A.M.I.E. Aust., is the Consulting Mechanical Engineer.

THE DEPARTMENTAL STORE IN SYDNEY

During recent years the growth of Sydney has been almost abnormal for a city of such youth, and it would be difficult to find any city, not only in the Empire but in the world, which has grown along modern lines at such a rapid rate. The population of this city is now well over the 1,000,000 mark, and one can safely say that there is no city in the world that has so many large Departmental Stores for its population.

Not only are there many, but their size and importance are comparable with any. In the course of the next few years we are to see great strides in the development of the City Store. Two of our largest and best known houses are to be completely re-built, and we shall have then two modern stores in the heart of our metropolis of which all may be proud. They will form main

centres of retail business in the city, and by their architectural treatment it is hoped, add interest and wealth to the community.

Visitors to all lands spend much time in the making of purchases at, and in the admiration of, Departmental Stores, and it is at present felt by those who return to these shores from abroad and by others who visit us, that we have in this city a class of stores equal to those to be found in other parts.

In the few years ahead we will see new stores completed—by the Spring of 1927 the store of which an account has here been given, will be completed, and others will be well advanced, so that this city must consider itself fortunate in having within its confines houses that have felt that business efficiency and architecture can be made to serve each other,

ARCHITECTURE

AN AUSTRALIAN MONTHLY JOURNAL

Published by ART IN AUSTRALIA LTD., SYDNEY

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PARK BELTS IN AUSTRALIA AND N. Z.

The example of Pioneer Town Planners

by C. C. READE

(Government Town Planner, Federated Malay States).

PIONEER town planning and park-belt reservations in the laying-out of the principal towns and cities of Australia and New Zealand during the early years of the nineteenth century was the subject of an historic survey and illustrated discourse at the Institute of Civil Engineers on Wednesday, December 9th, by Mr. Charles C. Reade, Government Town Planner of the Federated Malay States.

Mr. Cecil Harmsworth (President of the Garden Cities and Town Planning Association) presided. The lecturer was formerly Government Town Planner of South Australia, and responsible for the organisation of national conferences and passage of town planning and housing legislation in that State. In the course of a lecturing tour throughout Australia and New Zealand on behalf of the Garden Cities and Town Planning Association during 1914-5, and later in London, he had made various researches into the origin of the town-planning system, which resulted in the creation of numerous parks and open spaces in many towns. Both in New Zealand and South Australia extensive park-belts separating the existing town from the open country were laid down and reserved in most cases by instruction from those responsible for the creation of the reform schemes of settlement which originated in London from 1830 onwards. These park-belts originally were reserved for the purpose of public recreation. In the case of the New Zealand towns, they were intended not to be built upon, but to remain a wide strip of open land between the central town and the open farm lands beyond. Suburban growths and town extensions of the past fifty years had long passed beyond the original town belts which, for the greater part, remained to-day an extraordinary asset and a

valuable object lesson in providing means of recreation, pleasure and utility to the urban populations of to-day.

The early methods of the disposal of lands in Australia for settlement and town purposes were supplanted by the system of reform advocated by the different colonisation associations founded by Edward Gibbon Wakefield and others in London from 1830 onwards. The Wakefield system was responsible for carrying into effect, both in Australia and New Zealand, important changes in the planning and laying-out of towns, which led to more extensive and considered provision of open spaces, squares, sites for public buildings, wider streets and public purposes generally. Some people appeared to think that these developments were due originally to the skill and foresight of the pioneer surveyors and administrators responsible locally for the initial stages of planning and development. The splendid achievement of these pioneers were, however, in no sense diminished by the fact that instructions for the proper laying-out of towns (including provisions for belts of parklands separating the city from the open country) had emanated in the first instance from London. These instructions appeared, in part, to be influenced by town planning ideas and practice in Great Britain, derived in part from eighteenth century developments in Edinburgh, Bath, London and elsewhere.

Some years prior to the foundation of the first reform settlement in South Australia between 1836-7, when Colonel Light planned the City of Adelaide, the advocates of the Wakefield system and other pioneers of colonisation reform devoted much time and attention to settling the details of town design considered appropriate for the proposed schemes of settlement in South Australia

and elsewhere. Plans for a model town in Australia, surrounded by a belt of parklands one mile wide and equipped with squares, open spaces, crescents, and other public reservations, were published in London in 1830—the year that witnessed the birth of Wakefield's first colonisation society, which exerted such wide influence upon subsequent developments in Australia and New Zealand.

It was an important circumstance, however, that although the instructions from London to the New Zealand Surveyors in 1839-40 were very definite in respect to the provision of a belt of parklands between the proposed town and the open country, the instructions issued by the South Australian Commissioners from London to Colonel Light for the laying out of the first town in the new British Colony contained no direct reference to parklands. In other respects, however, the instructions relating to the town were similar in character to those given later to the New Zealand Surveyors.

The lecturer showed by various examples that for fifty years prior to the foundation of Adelaide, there were, however, considerable efforts at Town Planning in the Crown settlements of Sydney, Hobart, and other towns in Van Diemen's Land (Tasmania). Numerous reserves for town sites, together with sites for public and ecclesiastic purposes had been made. Leading towns had been equipped with squares, crescents and park areas under the influence of British ideas, and possibly earlier developments in the American colonies and other possessions. The laying down of important streets from 60 to 99 feet in width in place of earlier standards based on 40 and 50 feet had also been accomplished, but with only partial success.

Mr. Reade was doubtful, in the present state of knowledge and research, whether it could be said who was the originator of the park-belt scheme. Further examination of the records in London and elsewhere seemed necessary. Even so, there was no disputing the fact that Colonel William Light was the first of the pioneer town planners in Australia to design and carry out a distinctive system of park-belts in association with his very spacious and far-seeing plans for the City of Adelaide and its surrounding country. Light's achievements was all the more remarkable in the face of the bitter opposition and personal obloquy he suffered at the hands of those who owed everything to his brilliant skill and ability in selecting the site and planning the first great city of the reform era in Australia. The example of Adelaide could be traced through many subsequent town plans in Australia. It became the

model for several colonisation projects in Western Australia, and its influence upon Melbourne, Brisbane, and other centres could be established by reference to plans and documents of the period.

The present-day value of the parklands to Adelaide was immeasurable. They were an object lesson to towns and cities in countries both old and new, seeking to promote improvements and extension under modern laws relating to Town and City Planning. Similar object lessons were to be had in the New Zealand Cities (Wellington and Dunedin especially), which also possessed wide spaces of open land between the central business areas and the modern suburbs. It had yet to be proved that the New Zealand system, dating from 1839-40, was the outcome of Colonel Light's example in South Australia during 1836-7, or whether both were not part of an inspiration derived from pioneer reformers in London, who from 1830 onwards gave such distinctive character and force to the reforms affecting the colonisation of these countries at the time.

An important section of the lecture dealt with the restrictive influence of park-belts upon modern town development and their effect upon housing, land values, and other urban problems. It was shown that the unintelligent enclosure and locking-up of small towns had, in certain instances, resulted in difficulties of expansion and development in the case of growing towns. Methods of planning and lay-out designed to overcome these difficulties were illustrated.

The lecturer, in conclusion, strongly emphasised the need for outer and inner park systems in most modern towns. Financial and other provisions required consideration in formulating legislation for regional planning or the replanning of existing towns. In this respect, he suggested that further attention and study could, with advantage, be given to the legislation and special assessment areas practised in Boston, Kansas City, Denver, and other American cities with such conspicuous success.

Acting on representation received from the secretary of the Returned Soldier Architects of N.S.W., the Council of the Institute communicated with the Defence Department, Melbourne, with a view to obtaining an extension of time for the closing date of the proposed war memorial at Villers Bretonneux.

Advice has now been received from the Secretary of Defence that the closing date for this competition has been extended from 30th April to 31st May, 1926.

MEETINGS AND NOTICES

During the year twelve General Meeting were held. The attendance of members generally has been poor, which is not complimentary to the Lecturers or encouraging to your Council, to induce gentlemen of standing to give their valuable time and experience for the benefit of members.

The Council, recognising that some members who live at a distance from the city might have to forego their evening meal to attend meetings at 7.30 p.m., provided light refreshments after business had been completed at the November and December meetings. This resulted in an improved attendance, and gave those present the opportunity of friendly intercourse and exchange of views on matters of mutual interest. The new Council will, it is hoped, continue the arrangement, and if members will devote the first Tuesday evening in each month to the Institute, and make a practice of attending regularly, much mutual benefit will result.

The following schedule gives details of General Meetings:—

- 12th Jany.: Chair: Sir Charles Rosenthal. General business only.
- 2nd Feby.: Chair: Sir Charles Rosenthal. Presidential address.
- 3rd March: Chair: Sir Charles Rosenthal. Address given by Mr. G. Sydney Jones, A.R.I.B.A. Canberra Administrative Building Competition. "A Talk on the Winning Design."
- 7th April: Chair: Mr. A. S. Hook. Lecture by Mr. N. Warren Waterhouse, B.E., A.M.I. Struct E., on "Structural Engineering."
- 5th May: Chair: Mr. A. S. Hook. Lecture by Prof. W. Woodhouse. "Some Remarks on Greek Architecture in Relation to Modern Practice."
- 2nd June: Chair: Sir Charles Rosenthal. Address by Mr. W. H. Myers, B.E., M.I.E., "Some Observations Abroad."
- 7th July: Chair: Sir Charles Rosenthal. Address by Mr. J. F. Munnings, A.R.I.B.A., "Agra" and "The Taj."
- 17th Aug.: Chair: Sir Charles Rosenthal. Address by the President, "Canberra, Past and Present."
- 1st Sept.: Chair: Mr. A. S. Hook. Lecture (illustrated) by Mr. Walter W. Froggatt, "Timber-Boring Beetles and White Ants."
- 6th Oct.: Chair: Sir Charles Rosenthal. Lecture by Mr. Norman Weekes, A.R.I.B.A., "The Architecture of Cities."
- 3rd Nov.: Chair: Mr. A. S. Hook. Address by Prof. E. G. Waterhouse, "The Garden and the Home."
- 1st Dec.: Chair: Sir Charles Rosenthal. Address by the President, "A Review of Architectural Progress in N.S.W."

COUNCIL MEETINGS.

Commencing on 12th January, 1925, Council has held 25 Meetings—22 Ordinary, and 3 Special.

Attendance of members was as follows:—

Sir Charles Rosenthal (President)	16
Mr. G. H. Godsell (Ex-President)	2
Mr. A. S. Hook (Vice-President)	20

Mr. B. J. Waterhouse (Chairman)	12
Prof. L. Wilkinson	12
Mr. James Peddle (Hon. Treasurer)	18
Mr. H. C. Day (Hon. Secretary). Died in Aug.	14
Col. J. H. Hurst (Hon. Asst. Secretary)	20
Mr. A. W. Anderson (Member of Council) .. .	6
Mr. Wm. De Putron " " " .. .	13
Mr. R. J. K. Harris " " " .. .	13
Mr. G. J. Hill " " " .. .	23
Mr. J. D. Moore " " " .. .	11
Mr. J. F. Munnings " " " .. .	14
Mr. R. Richardson " " " .. .	18
Mr. E. A. Scott " " " .. .	14
Mr. O. W. Weston " " " .. .	19

Professor Wilkinson went to England in August, on extended leave.

The President, Sir Charles Rosenthal, was absent for two months during the year, on leave.

ANNUAL DINNER.

The Annual Dinner was held on 18th June, at the Wentworth Hotel, Lord Forster, Governor-General, being the principal guest. Mr. Mutch, Minister for Education, and representatives of kindred Societies were also present as the guests of the Institute. This was one of the most successful dinners given by the Institute.

THE GREAT WAR, 1914-1918, HONOR ROLL.

Your Council considered an Honor Roll should be erected in the room of the Institute, to perpetuate the memory of those Institute members who served in the Great War. A design has been accepted, and it is hoped that early in the current year the Honor Roll may be officially unveiled.

EXHIBITION.

The Annual Exhibition of the Institute was held during April, in the Art Gallery of the Education Department. It was officially opened by Lady Chair, on the 9th of that month, and the high standard of work so well defined last year was equalled, if not exceeded, on this occasion. A great measure of the success of this exhibition was due to the untiring efforts of the Honorary Secretary, the late Mr. H. Cooper Day.

FEDERAL COUNCIL.

At the last Annual Meeting of the Federal Council, held in Sydney in June, 1925, Sir Charles Rosenthal was elected President, and Mr. Waterhouse, Hon. Secretary, for the current year. The Annual Report shows that under the Presidency of Mr. Henderson, much useful work has been accomplished. The standardisation of Conditions of Contract throughout Australia, and the establishment of a Federal Institute of Architects, are matters which are receiving attention.

CONFERENCES.

Several further conferences were held during the year with the Master Builders' Association, in reference to the Conditions of Contract and the Quantity System. The latter is to be the subject of further conferences in the near future.

CANBERRA OFFICIAL VISIT.

Twenty-six members of the Institute visited the Federal Capital during September, and made tours of inspection to all outstanding works. They were much pleased and impressed with what they saw, and it is regretted that a larger number did not avail themselves of this opportunity, particularly in view of the fact that the Conditions of Competition for the War Memorial Buildings at Canberra had been issued, and the visit gave opportunity for intending competitors to view the site. Several members of the Master Builders' Association, including the President, Mr. Beddie, also joined the party.

MEMBERSHIP.

During the year, thirty-two members have been elected, and there are a number of applications still incomplete. The new members formally elected and admitted are:—

Allen, C. W. B.	Lyons, L. E.
Aisbett, John C.	Miller, J. M.
Bradley, G. Penn.	Mullaly, M. R.
Bonwick, H. J.	McConnell, K. H.
Castleden, A. C.	Paul, A. G.
Castleden, F. G.	Perkins, J.
Christian, C. H.	Robertson, J. E.
Denley, F. S.	Robertson, J. H.
Evans, S. G.	Robertson, L. L.
Johnson, T. B.	Robertson, L. S.
Kelly, Hy.	Scott, L. G.
Kemmis, O. R.	Slatyer, S. A.
Knight, C. W.	Tepper, R. H.
Knispel, W. L.	Walker, F. H. E.
Leahy, E. N.	Watson, Frank
Leake, C. D.	Wright, Colin C.

OBITUARY.

The Institute has suffered a great loss by the death, in August last, of its Hon. Secretary, Mr. H. Cooper Day, as the result of an accident. His interest in the welfare of the Institute, and of the Architectural Profession generally, had been unflagging for many years, and the great success attending the Annual Exhibition was in the main due to his energy and ability.

We also deeply deplore the loss of Professor W. H. Warren, who died on 9th January last. The Professor was an honorary member of the Institute and his life work has been of great value and wide reaching in its influence on the State, and, in fact, on the whole Commonwealth.

PUBLIC COMPETITIONS.

The two outstanding Competitions launched during the year just passed, are both connected with the late war. At Canberra, a War Memorial Building is to be erected, at a cost of £250,000; and at Villiers Bretonneaux, in France, an Australian National Memorial is to be emplaced, at a cost of £100,000. The Federal Authorities in both cases have asked, and received, the assistance of the Federal Council in arranging conditions, etc., and it is to be hoped there will be a generous response on the part of Australian Architects.

INSTITUTE COMPETITIONS.

In order to stimulate interest in students' work, provision was made for two students' competitions, the prizes being awarded (1) for sketching, by Mr. Howard Joceland; and (2) for measured drawings, by Mr. Manfred, of Goulburn. In the former there were, unfortunately, no entries. In the latter, Mr. R. S. Hawdon was the prize-winner.

EDUCATION AND EXAMINATION COMMITTEE.

The examinations for the Royal Institute of British Architects, usually held in February each year, and conducted on their behalf by this Committee, have been fixed for April, 1926, in lieu of February.

JOURNAL.

The Council has decided that the Journal, "Architecture," which has been published by Smith & Julius for the last twelve months, should, as soon as the present arrangement can be terminated, take the form of a Journal of Proceedings only, the publication of same to be arranged through competitive tendering. It may be some time—at least three months before any change can take place, on account of business undertakings on the part of Smith & Julius in connection with advertisement contracts. The difficulty in continuing under the present system is largely due to the apathy of members in supplying articles and other matter suitable for publication.

PRACTICE COMMITTEE.

The Practice Committee met on many occasions during the year, and much useful work was accomplished. Matters pertaining to Scale of Charges, Conditions of Agreement, and general practice were dealt with. The Practice Committee is always pleased to adjudicate or advise on any matters referred to them by the Council affecting the general practice of members.

LIBRARY.

The Library has been enriched during the year by the valuable collection of books passed over by the late Architects' Association. In January, the members of Council presented Mr. Hardy Wilson's "Colonial Architecture." At the end of the last year, the Wren Society's publication was also added. Besides the general library, a good collection of magazines is received monthly, and these are available to members.

SECRETARY.

The Official Secretary, Miss L. M. Jagers, found it necessary, owing to private family reasons, to tender her resignation; this the Council accepted with regret. Miss Jagers proved herself capable and efficient, always courteous and helpful. The position has been filled by the appointment of Miss Chester, who, the Council feel sure, will prove her worth as soon as she becomes accustomed to the conditions and routine.

CONCLUSION.

The outstanding feature of the activities of the Institute during the year just closed, has been the interest taken by the members of the late Architects' Association. The amalgamation has been more than in name, and the Institute now fully represents the profession in the State.

It is gratifying to note that Public Bodies, and the public generally, are more and more recognising the status of the Institute. On many occasions recently the President and Council have been consulted by Public Bodies, and the President has on several occasions officiated successfully as arbitrator in the settlement of disputes between client and architect and builder.

The year has been a busy one for the Council and the various Committees. Members of the Institute generally have not, perhaps, been aware of the time that is devoted to the Institute and its affairs by those who act on the Council and Committees appointed from time to time.

LIST OF MEMBERS

Many new names have been added to the list of members, and several new committees have recently been appointed, and a still busier year, with wider prospects and increased activities, is anticipated for 1926.

Jones, G. Sydney, A.R.I.B.A., 113 Pitt Street, Sydney.
MEMBERS (M.I.A.)

*Adam, J. S., Mutual Life Buildings, Wynyard Street, Sydney.

Aisbett, John C., 537 George Street, Sydney.

Allen, C. W. B., 13 Mansfield Street, Glebe Point.

Allan, W. W., East Street, Narrandera.

Aley, Augustus, New Zealand Insurance Bldgs, Pitt Street, Sydney.

Alsop, Rodney H., F.R.I.B.A., 352 Collins Street, Melbourne.

Anderson, A. W., 7 Bridge Street, Sydney.

Anderson, E. W., District Works Office, Armidale.

Apperly, Eric Langton, 79 Pitt Street, Sydney.

Baber, A. M., 3 Spring Street, Sydney.

Backhouse, O., c/o Architect's Branch, Dept. of Education, Sydney.

Barr, John, A.R.I.B.A., Equitable Buildings, George Street, Sydney.

Barry, William George, "Stromness," William Edward Street Longueville.

Baxter, Gerald Preston, Dept. of Public Works, West Kempsey.

Bayley, Arthur L., 6 Martin Road, Centennial Park.

Beattie, Oscar Alexander, A.R.I.B.A., Tryon Road, Lindfield.

Beckley, Percy G., 97 Flood Street, Leichhardt.

Berry, John L., c/o Messrs. Wilson, Neave & Berry, Union House, George Street, Sydney.

Bishop, F. J., Peel St., Tamworth.

Blair, G. McLeish, Govt. Architect's Branch, Dept. of Public Works, Sydney.

Bloomfield, F., l'Anson, A.R.I.B.A., 115 Pitt Street, Sydney.

Board, F. J., Lismore.

Bohringer, Charles, T. & G. Buildings, 201 Elizabeth St., Sydney.

Bonwick, H. J., "Anembo," Blytheswood Ave., Turramurra.

Bradley, G. Penn, 123 High St., Neutral Bay.

Bridekirk, C. E., Duntroon St., Hurlstone Park.

Brodrick, R. H., Town Hall, Sydney.

Brown, A. O., 251 George St., Sydney.

Brown, R. O., Architect's Branch, Education Dept., Sydney.

Buchanan, S. H., 26 Hunter St., Sydney.

Buckle, F., 107 Pitt St., Sydney.

Budden, H. E. Friha, E.S. & A. Bank Chambers, George and King Sts., Sydney.

Button, C. H., Tooloon St., Coonamble.

Cambridge, Ernest Robert, Railway Construction Branch, Public Works Dept., Sydney.

Campbell, J., 18 Enmore Rd., Newtown.

Campbell, James Ernest, 42 Alt St., Sydney.

Carfrae, Alex. Swinton, 84 Pitt St., Sydney.

Castleden, F. G., Bolton St., Newcastle.

Castleden, A. C., Bolton St., Newcastle.

Chambers, C. W., Holt's Chambers, 121 Pitt St., Sydney.

Chapman, Victor Charles, "Dinorwic," Margaret St., Woolwich.

Chinn, Frederick Henry, Odlin's Buildings, Cable St., Wellington, N.Z.

Chisholm, H. B., c/o. Yarwood, Vane & Co., 16 O'Connell Street.

Christian, C. H., 64 Bundarra Rd., Woollahra.

Cizzio, V. D., c/o. S. Warden, 8a Castlereagh St., Sydney.

Clamp, J. Burcham, 122 Pitt St., Sydney.

Clark, A. Lanyon, 63 Pitt St., Sydney.

Clatworthy, Frank, c/o. Manson & Pickering, Union House, George St., Sydney.

Coleman, F. E., Department of Public Works, Sydney.

Colman, Arthur Ernest, District Works Office, Wollongong.

Cook, G. S., Dept. Works & Railways, 151 Collins St., Melbourne.

Cope, C. J., Sydney Harbour Trust, Circular Quay.

Copeland, Cecil R., Works & Railways Dept., Customs House, Sydney.

Copeman, J. J., 72b King St., Sydney.

Cosh, Thomas Frame, 16 Spring St., Sydney.

Courtney, Cyril John, City Tattersall's Chambers, Pitt St., Sydney.

Craig, R. G., "Baldovan," Balfour Rd., Bellevue Hill.

Crane, Arnold N., "Daily Telegraph" Buildings, King St., Sydney.

Cranna, H. B., District Works Office, Newcastle.

Crust, John, Dept. Works & Railways, Customs House, Sydney.

Cuthbert, C. D., c/o. Govt. Architect, Phillip St.

Dalziel, John George, 22 Queen St., Mosman.

Darling, T. J., 8 Spring St., Sydney.

Deeble, John Nation, Byng St., Orange.

Denley, E. S., Merewether, Newcastle.

Denning, Geo., C/o. Wardell and Dennis, Adyar House, Sydney.

De Putron, Wm., 10 Bligh St., Sydney.

Dobson, D. Bennet, "Clifton," Kirribilli.

Donoghue, Jack Patrick, T. & G. Bldgs., Brisbane.

Douglas-Smith, Arthur, Challis House, Martin Place, Sydney.

Dowling, V. L., Union Club, Bligh St., Sydney.

Downing, I. O., 75 North Steyne, Manly.

Dryden, W., 167 Rocket Street, Bathurst.

Duckworth, Bertram C., "Pipitea," Prince Edward St., Long Bay.

Durrell, G. W., 375 George St., Sydney.

Dyer, B. A., 92b Pitt St., Sydney.

Edds, W. A., Tweed Heads.

England, W. O., 17 Castlereagh St., Sydney.

Esplin, D., 85 Pitt St., Sydney.

* Denotes a Licentiate R.I.B.A.

Evans, S. G., "Silvanus," Major St., Coogee.

Fair, A. C., c/o. Tasmanian Cement Prop. Ltd., Devonport, Tas.

Fizelle, M., 17 Martin Place, Sydney.

Ford, B. W., Chamber of Commerce Buildings, George and Grosvenor Sts., Sydney.

Fowell, Joseph Charles, A.R.I.B.A., 138 Spencer Rd., Cremorne.

Fraser, W. R., 217 Parramatta Rd., Annandale.

Gardiner-Garden, H. McB., Govt., Architect's Branch, Dept. Public Works, Sydney.

Gates, Herbert John, "Carthona," Murdoch St., Cremorne.

Gerard, Allen W., School of Architecture, Sydney University.

Chiggino, D. V., D.W.O., Moree.

Gilbert, W. Bruce, 47 Nelson Bay Rd., Waverley.

- *Gill, W., Casino.
 Godsell, G. H., 14 Martin Place, Sydney.
 Gordon, P. J., A.R.I.B.A., 17 Martin Place, Sydney.
 Grant, G. L., 114 Hunter St., Sydney.
 Gray, G. B., 375 George St., Sydney.
 Green, E. R., A.R.I.B.A., 115 Pitt St., Sydney.
 Greenwell, C. B., Sc.A., A.R.I.B.A., E.S. & A. Bank Chambers, George and King Sts., Sydney.
 *Grove, H., Govt. Architect's Office, Phillip St., Sydney.
 Halligan, M. B., Union Trustee Co., 15 O'Connell St., Sydney.
 Hadley, B., Lecturer-in-charge, Dept. of Architecture, Technical College, Harris St., Ultimo, Sydney.
 Hamilton, Claude, "Daily Telegraph" Building, King St., Sydney.
 Harris, R. Keith, A.R.I.B.A., 72b King St., Sydney.
 Harrison, George Leslie Blair, Peel Shire, Tamworth.
 Hardwick, H., Mudgee.
 Helman, H., Main St., West Wyalong.
 Hennessy, Jack F., B.Sc.A., 251 George St., Sydney.
 Henderson, Edwin Herbert, Dept. Works & Railways, Customs House, Sydney.
 Herbert, L. F., 115 Pitt St., Sydney.
 Hickson, R. L., Falconer St., Armidale.
 Hill, G. J., 42 Bridge St., Sydney.
 Hinton, R. W., c/o Messrs. Scott & Green, 115 Pitt St., Sydney.
 Hoare, J. N., Messrs. Weston & Hoare, 14 Martin Place, Sydney.
 *Hodges, H. T., Commercial Bank Chambers, 273 George St., Sydney.
 Hodgson, Allan Mathew, Bull's Chambers, 28 Martin Place, Sydney.
 Hodgson, F. L., Bull's Chambers, 28 Martin Place, Sydney.
 Hodgson, T. W., 28 Martin Place, Sydney.
 Holmes, H. E., c/o Metropolitan Board of Water Supply & Sewerage, Pitt St., Sydney.
 Hook, A. S., A.R.C.A. (Lond.), Public Works Dept., Sydney.
 Horrocks, Miss Edith, "Moorong," Greenwich Rd., Greenwich.
 Hoy, C. H., Dept. Works & Railways, Customs House, Sydney.
 Hughes, Gilbert Noel, 119 Phillip St., Sydney.
 Hunt, Walter, Townsville, Queensland.
 Hurd, Samuel J., 112 Johnston St., Annandale.
 Hurst, J. H., Hopetoun Av., Vaucluse.
 Ironside, W. T., Architectural Bldg., Education Dept., Sydney.
 Jackson, H. O., P.O., Wamberal, via Gosford.
 Jeater, W. D., A.R.I.B.A., Watt St., Newcastle.
 Jeffs, C. E., Wagga.
 Johnson, C. V., c/o Messrs. Scott & Green, 115 Pitt St., Sydney.
 Johnson, T. B., 375 George St., Sydney.
 Jones, Norman Llewellyn, Agricultural Dept., Mines Museum, George St., N., Sydney.
 Jorgenson, James Henry, "Kalang," Kameruka Rd., Northbridge.
 Joseland, H., Twyford House, 17 Castlereagh St., Sydney.
 Keesing, G. S., A.R.I.B.A., 251 George St., Sydney.
 Kelly, Hy., Bank of N.S.W. Chambers, Katoomba.
 Kemmis, O. R., Lord's Place, Orange.
 Kennedy, D., Stanley St., Chatswood.
 Kent, H. C., F.R.I.B.A., 58 Pitt St., Sydney.
 Kenwood, W., Post Office Chambers, Pitt St., Sydney.
 Kenworthy, George Newton, Tryon Rd., Lindfield.
 Kerr, James Aubrey, A.R.I.B.A., Kembala Building, 58-60 Margaret St., Sydney.
 Kethel, J. A., 58 Pitt St., Sydney.
 King, A. S., 200 Birrell Street, Waverley.
 Knight, C. W., "Lurnea," Burrabirra Ave., Vaucluse.
 Knispel, W. L., 58 Margaret St., Sydney.
 Lamrock, W., Town Hall, Drummoyn.
 Leahy, E. N., B.M.A. Bldgs., 32 Elizabeth St., Sydney.
 Leake, C. D., 105 Pitt St., Sydney.
 Leggatt, Frank Redmayne, Bellevue St., Nth. Sydney.
 Lemont, R. E., 72b King St., Sydney.
 Likely, A. C., c/o F.F. & Ice Co., Harbour St., Sydney.
 Lindsay-Thompson, E., Sydney Arcade, King St., Sydney.
 Lockley, H., c/o Existing Lines Dept., N.S.W. Railways, Bridge St., Sydney.
 Lodge, E. H. E., Boomerang House, 139 King St., Sydney.
 Louat, Rutledge, 375 George St., Sydney.
 Lundholm, J. E., Dubbo.
 Lucas, L. C., c/o War Service Homes Commission, Clarence Street, Sydney.
 Lyons, L. E., Dept. Public Works, Goulburn.
 McIntosh, Harry Brewster, 114 Walker St., North Sydney.
 Mackellar, Crawford Hutcheson, 72b King St., Sydney.
 Maclean, H. A., 2nd Floor, 113 Pitt St., Sydney.
 Macqueen, A., 8 Spring St., Sydney.
 Manfred, Herbert Charles, Belmore Sq., Goulburn.
 Mandelson, Maurice Roy, Parsley Rd., Vaucluse, Sydney.
 Marks, T. J., 14 Martin Place, Sydney.
 Martin, A. H., "Silverdene," Victoria St., Roseville.
 Massie, H. H., Messrs. Kent & Massie, 58 Pitt St., Sydney.
 Mathers, Robert Melrose, 63 Awaba St., Mosman.
 Mathers, William Melrose, Lennox St., Mosman.
 *McBurney, Harold N., 15 O'Connell St., Sydney.
 McCarthy, T. J., Challis House, Martin Place, Sydney.
 McConnell, X. H., c/o Manager, Q.N. Bank, Pitt St., Sydney.
 McCredie, A. L., 7 Bridge St., Sydney.
 *McCredie, L. C., c/o Robertson and Marks, 14 Martin Place, Sydney.
 McDonald, Allan, Temora.
 McDonald, J. Boyd, Macquarie St., Dubbo.
 Merriman, J. H., Town Hall, Sydney.
 Merewether, E. R. H., Bolton St., Newcastle.
 Miller, J. K., c/o J. & H. Kirkpatrick, 3 Martin Place, Sydney.
 Miller, J. M., 22 Lamrock Ave., Bondi.
 Mills, J. C. R., "Ariba," 38 Martin Place, Sydney.
 Minnett, R. V., 12 Loftus St., Sydney.
 Moloney, F. H., 119 Phillip St., Sydney.
 Money, Percy John, Works Director, Port Darwin.
 Moyes, William S., Dept. Public Works, Sydney.
 Monks, William John, Wagga Wagga.
 Moore, John D., A.R.I.B.A., 72b King St., Sydney.
 Morris, Howell Price, Sylvia and Richmond Sts., Cronulla.
 Morrow, D. T., 17 Martin Place, Sydney.
 Morrow, John Donal, Fitzmaurice St., Wagga.
 Mould, S. M., A.R.I.B.A., 85 Pitt St., Sydney.
 Mullaly, M. R., 148 Phillip St., Sydney.
 *Munnings, J. F., A.R.I.B.A., c/o Messrs. Power & Adams, Bank N.Z. Chambers, Wynyard St., Sydney.
 Nangle, J., F.R.A.S., Superintendent, Technical College, Sydney.
 Neave, S. A., A.R.I.B.A., 247 George St., Sydney.
 *Nelson, W. A., 79 Pitt St., Sydney.
 Newman, W., 3 Spring St., Sydney.
 Newton, J., 4 Gouldsbury St., Mosman.

- Noone, John Murray, Architect's Branch, Dept. Public Works, Sydney.
- Nurzey, N., Technical College, Sydney.
- *Oakshott, G. J., Commonwealth Dept., Works & Railways, Customs House, Sydney.
- O'Connor, J. F., Inverell.
- Osborne, Alfred James, Renwick St., Drummoyn.
- Oxenham, S. S., Mirtt's Bldgs., Abbot St., Cairns, Queensland.
- Parkes, C., Dept. Public Works, Sydney.
- Paul, A. G., Dist. Works Office, Tamworth.
- Paul, E., c/o Messrs. Morrow & De Putron, Martin Place, Sydney.
- *Peddle, James, 226a George St., Sydney.
- Pender, Walter Harold, 18 Elgin St., West Maitland.
- Peplow, David, 3rd Avenue, Campsie.
- Peplow, F. W., c/o. Hennessy & Hennessy, 251 George St., Sydney.
- Perkins, J., Challis House, Martin Place, Sydney.
- Pitt, Eric Clarke, 92b Pitt St., Sydney.
- Pitt, N. B., Bolton St., Newcastle.
- Prevost, R. A. de T., 17 Castlereagh St., Sydney.
- Purdue, Archibald John, Govt. Architect's Branch, Dept. of Public Works, Sydney.
- Ranclaud, P. E., 15 Castlereagh St., Sydney.
- Reeves, Dawson, 6 Boyle St., Mosman.
- Reid, John, 350 George St., Sydney.
- Richardson, R., 79 Pitt St., Sydney.
- Ritchie, P. W., 79 Pitt St., Sydney.
- Roarty, S., A.R.I.B.A., Kembala Building, Margaret St., Sydney.
- *Roberts, George A., 179 George St., Sydney.
- Robertson, J. E., Public Works Dept., Newcastle.
- Robertson, J. H., East St., Narrandera.
- Robertson, L. L., 16 Bridge St., Sydney.
- Robertson, L. S., 16 Bridge St., Sydney.
- Robertson, Struan, 14 Martin Place, Sydney.
- Rosenthal, Sir Charles, F.R.I.B.A., C.M.G., Sirius House, Macquarie Place, Sydney.
- Ross, H. E., Equitable Building, 350 George St., Sydney.
- Rowe, H. Ruskin, Equitable Building, 350 George St., Sydney.
- Ruwald, Cyril C., A.R.I.B.A., "Letchworth," Russell St., Lindfield.
- Ryan, F. P., 661 Dowling St., Moore Park, Sydney.
- Sampson, T. P., Pendennis Chambers, 375 George St., Sydney.
- Saunders, A. R., c/o Messrs. Ross & Rowe, 350 George St., Sydney.
- Scott, E. A., 115 Pitt St., Sydney.
- Scott, Elwin Harry, "Daily Telegraph" Buildings, King St., Sydney.
- Scott, L. G., 350 George St., Sydney.
- Scott, T. M., c/o E. A. Scott & Green, 115 Pitt St., Sydney.
- Seaton, Stanley Alfred, c/o Messrs. Robertson & Marks, 14 Martin Place, Sydney.
- Seale, Joseph Richards, Mason Av., Cheltenham.
- Seymour, G. S., c/o Messrs. Lamrock & Bates, Lords Place, Orange.
- Shaw, R. A., c/o W. J. Monks, F.I.A., Wagga.
- Shaw, Reginald Albert, 9 Martin Place, Sydney.
- Shirlev, J. H., "Daily Telegraph" Office, 157 King St., Sydney.
- Slatter, S. A., Dist. Works Office, Dubbo.
- Smith, C. H. Strachan, 1 Angle Road, Canterbury, Melbourne.
- Smith, F. T., 88 Pitt St., Sydney.
- Sodersteen, E. L., 3 Spring St., Sydney.
- Somerville, A. F. T., 273 George St., Sydney.
- Sowter, W., Parker St., Cootamundra.
- Spain, Alfred, F.R.I.B.A., 16 Spring St., Sydney.
- *Sparke, A., Wahroonga.
- *Spark, C. H., Architect's Branch, Education Dept., Sydney.
- Spencer, J. R., 54a Pitt St., Sydney.
- Stafford, Allan Edgecliff, 53 Pine St., Randwick.
- Stansfield, J. S., Royal Chambers, 3 Castlereagh St., Sydney.
- Steer, Victor G., 105 Pitt St., Sydney.
- Stocker, H., "Karola," 49a Bennett St., Bondi.
- Sturtevant, H. B., P.O., Box 418, Newcastle.
- Sutton, Basil F., Works and Railways, Customs House, Sydney.
- *Sykes, Joseph, 29 Brighton Rd., St. Kilda, Victoria.
- Taylor, Florence Mary (Mrs.), 20 Loftus St., Sydney.
- Tepper, R. H., 39 Hunter St., Sydney.
- Thorp, S. G., 226a George St., Sydney.
- Tingle, E., Watt St., Newcastle.
- Todd, C. H., Uttley, Dept. of Works & Railways, Selbourne Chambers, Pirie St., Adelaide.
- Tojkander, Bengt. (Member of Architects' Association, Finland), c/o Messrs. Robertson & Marks, 14 Martin Place, Sydney.
- Traill, S. John, Warrawee, Sydney.
- Turner, G. H., c/o E. R. Orchard, 8 Spring St., Sydney.
- Vernon, H. Venables, 38 Martin Place, Sydney.
- Vicars, Jas., Challis House, Martin Place, Sydney.
- Wagstaff, Harry James, 491 Bourke St., Melbourne.
- Walford, Dudley Vivian, "Molton," 79 Ocean St., Woollahra.
- Walker, Charles Mack, 114 Hunter St., Sydney.
- Walker, F. H. E., 266a George St., Sydney.
- Wall, W. B., Derby St., Watson's Bay.
- Wallace, W. S., D.W.O., Lismore.
- Warden, Sidney, Cr. Hunter & Bligh Sts., Sydney.
- Wardell, H. E., 20 Bridge St., Sydney.
- Waterhouse, B. J., 17 Bligh St., Sydney.
- Waterston, H. C., 6 Bridge St., Sydney.
- Watson, Frank, 38 Martin Place, Sydney.
- Webb, K. E., A.R.I.B.A., 247 George St., Sydney.
- Weekes, B. Norman, A.R.I.B.A., 57 Darling Point Road, Darling Point.
- Weidner, L. R., Dept. Works & Railways, Customs House, Sydney.
- Welch, G. W. A., Pine Avenue, Leeton.
- Wells, R. M. S., Dept. Public Instruction, Sydney.
- Weston, O. W., 14 Martin Place, Sydney.
- White, H. E., 180 Phillip St., Sydney.
- Wilkinson, Prof. Leslie, F.R.I.B.A., School of Architecture, University, Sydney.
- William, H. Glencoe, c/o Messrs. Ross & Rowe, 350 George St., Sydney.
- Wilton, F. H. B., Equitable Building, George St., Sydney.
- Wilshire, Esmond B., Yaralla Chambers, 109 Pitt St., Sydney.
- Winn, Frederick, 2 Hunter St., Sydney.
- Winter, C. R., A.R.I.B.A., c/o Messrs. Robertson & Marks, Martin Place, Sydney.
- Withers, H. C., Campsie.
- Wood, O. P., A.R.I.B.A., "Daily Telegraph" Building Sydney.
- Woodforde, M. V. E., Kyoto Flats, Evans Rd., Elizabeth Bay.
- Wright, Arthur Henry, 79 Pitt St., Sydney.
- Wright, Colin C., Evans Road, Roslyn Gardens, Darlinghurst.
- Wright, George, "Clifton," Kenneth St., Longueville.
- Wright, J. J. H., 186 Holden St., Canterbury.
- Wright, S. C., 3 Spring St., Sydney.
- Wunder, W., Dept. Works & Railways, Customs House, Sydney.
- Young-Wai, Samuel, 12 Dover St., Summer Hill.
- Young, W. A., M.U. Buildings, Elizabeth St., Sydney.

HONORARY MEMBERS.

Blacket, Cyril, Tasman Park, St. George's Basin.
 Carter, Norman, Vickery's Chambers, Pitt St., Sydney.
 Cohen, Judge, Judges' Chambers, District Court,
 Queen Square.
 Corlette, H. C., F.R.I.B.A., c/o R.I.B.A., 9 Conduit
 St., Regent's Park, London.
 Davey, J. J., "Bransburton," Day St., Marrickville.
 Hould, Wm. H., Principal Librarian, Public Library,
 Sydney.
 Lister-Lister, W., 76 Pitt St., Sydney.
 Lysaght, Herbert Royse, 8 Spring St., Sydney.
 Mann, G. V. F., Director of the National Art Gallery.
 Souter, D. H., 17 Castlereagh St., Sydney.

Sulman, Sir John, F.R.I.B.A., Warring St., Mc-
 Mahon's Point.
 Walker, Frank, Chatswood.
 Watson, Capt. James, H., F.R.A.H.S., 3 West Street,
 North Sydney.

STUDENTS.

Barnard, A. E., 117 Ebley St., Waverley.
 Goode-Smith, Walter M., "Handsworth," Third St.,
 Canterbury.
 Grout, Reg., "Winsbury," Croydon Av., Croydon.
 Marsh, Arthur P., "Millhaven," Polding St., Fairfield.
 (Signed) L. M. JAGGERS, Secretary,
 5 Elizabeth St., Sydney.

Tel.: B 4915.

*Denotes a Licentiate R.I.B.A.

Architectural Competition for Australian National Memorial to be erected at Villers Bretonneux, France

The closing date for submission of designs in connection with this
competition is extended to 31st May, 1926.

Department of Defence
Melbourne

T. Trumble,
Secretary

PRAISE FROM SIR RICHARD

Six years ago Messrs. Bray & Holliday Ltd. installed display windows for Proud's Ltd. of King Street, Sydney. Mr. Thomas S. Gill, one of Melbourne's leading store fitters, just returned from a tour of the world, has stated that in his opinion there is not a more modern or effective set of display windows than these to be seen; although, of course, there are much larger. "Praise from Sir Richard is praise indeed," and Messrs. Bray & Holliday feel that an opinion such as this, from a man of Mr. Gill's standing, is most gratifying. Of course, it is a well-earned opinion, as the many modern and effective shop fronts installed by Bray & Holliday in Sydney testify.

BALANCE SHEET, 31st. DECEMBER, 1925

LIABILITIES.

	£	s	d
Education Fund	137	3	0
Endowment Fund	54	18	11
Bal. being excess of Assets over Liabilities	805	17	9
	£997	19	8

INCOME AND EXPENDITURE.

To—	£	s	d.
Subscription Fees	760	6	0
Refunded	11	11	0
	748	15	0
Federal Levy	74	12	6
Refunded	0	10	0
	74	2	6
Educational Levy	6	18	0
	829	15	6
Agreements, Sales and Royalty	145	11	4
Dinner	82	10	0
Col. Arch. (Hardy-Wilson)	10	14	6
St. Paul's Fund	30	9	0
R.I.B.A.	51	18	0
Cricket Match	3	3	0
Architects' Association	66	9	2
Exhibition	230	4	6
Canberra	114	7	11
Dinner to Prof. Wilkinson	13	0	0
Endowment	0	15	2
Miscellaneous	14	10	9
Savings Bank—Interest—			
Endowment Account	1	13	3
General Account	12	3	4
	13	16	7
Commission, etc.	0	5	1
	£1607	10	6
By—	£	s	d.
Rent & Cleaning	253	17	7
Salaries and Typing	261	0	0
Federal Levy	97	15	0
Telephone	16	19	7
Printing and Stationery	110	16	9
Petty Cash	65	5	10
Agreement Purchases	23	6	8
Dinner	122	5	3
Exhibition, London	1	1	3
Exhibition	216	13	9
Cricket Match	27	13	6
Dinner, Prof. Wilkinson	13	0	0
St. Paul's Fund	30	9	0
Canberra	105	11	9
Library	15	15	5
R.I.B.A. Examinations	12	15	0
R.I.B.A. Refunds	32	6	0
Commission, etc.	5	1	10
Endowment Fund	0	15	2
Miscellaneous	27	14	4
Balance	167	6	5
	£1607	10	6

ASSETS.

	£	s	d	£	s	d
Bank Balances—						
General	72	17	0			
Savings Bank	357	4	9			
Endowment Fund	54	18	11			
	485	0	8			
Furniture	362	5	10			
Less 7½%	30	3	6			
	332	2	4			
Library, 1924	100	0	0			
*Addition by purchase	10	10	0			
Architects' Association	50	0	0			
	160	10	0			
Agreements	0	6	8			
Sundry Debtors, value say—	20	0	0			
	£997	19	8			

SUNDRY ACCOUNTS.

Dinner.		£	s	d
To Cash		122	5	3
		£122	5	3
By Cash		82	10	0
Balance		39	15	3
		£122	5	3
Exhibition.		£	s	d
To Cash		216	13	9
Balance		13	10	9
		£230	4	6
By Cash		230	4	6
		£230	4	6
Cricket Match.		£	s	d
To Cash		27	13	6
		£27	13	6
By Cash		3	3	0
Balance		24	10	6
		£27	13	6
Canberra.		£	s	d
To Cash		105	11	9
Balance		8	16	2
		£114	7	11
By Cash		114	7	11
		£114	7	11

Audited and found correct, 1st February, 1926.

JAMES PEDDLE, *Hon. Treasurer.*
G. L. GRANT, *GEO. W. DURRELL.*

*NOTE.—This ten guineas was for purchase of the Hardy-Wilson Books which were presented to the Institute by its Council.

ORDINARY GENERAL MEETING SYDNEY, 2nd FEBRUARY, 1926

SIR CHARLES ROSENTHAL (President) occupied the Chair.

Apologies were received from Messrs. Minnett, England, Gerard and Kerr.

A Ballot for new members resulted in the election of Messrs. S. E. Coleman and V. L. Dowling.

THE CHAIRMAN mentioned that as President, and on behalf of the Council, he had written a letter of sympathy to Mr. Warren, Solicitor, Sydney, in connection with the death of his father, Professor Warren, to which he had received a reply. Professor Warren had been an honorary member of their Institute, and had done an extraordinary amount of work, extending over many years, certainly mainly on the Engineering side, but in many avenues also, by which members of the Institute had profited. He thought it would be a graceful thing if at this General Meeting a Resolution of sympathy were passed.

MR. PEDDLE moved:—

"That a letter be written to the relatives of the late Professor Warren, expressing the regret of Members of the Institute at his passing, and tendering their sincere condolences to the members of his family."

MR. WATERHOUSE seconded. (Motion carried).

MR. WATERHOUSE: I have noticed in the press the last day or so a resuscitation of the question of the laying out of Hyde Park, and I would like it to be part of the work of the incoming Council to follow that matter up more diligently. A very interesting article on parks generally appeared recently, followed by a letter from Mr. Sulman. It seems as if we are going to have Hyde Park back again, and if the Institute could do anything to have the Competition revived, now is the opportune time. It is really very important, because with the new Stations to be established, there is a unique opportunity afforded to architects and those interested in tree and shrub planting, to do something. I think this is a matter which we might have as one of the planks of our new platform. I move:

"That the incoming Council deal with this matter immediately."

MR. MOORE seconded.

PRESIDENT: Most of you are probably aware that some two years ago, when a member of the City Council, I was able to get a resolution passed providing that the new layout of Hyde Park should be per medium of competition. There was then, and in a very marked degree there is now, among the aldermen of the Town Hall, a desire that one member of the Council's staff should do the work, and with all the deference in the world to the ability of that particular man, we think this is a case for a much wider sphere of action.

As some of you know, Mr. Waterhouse and I collaborated with the Town Clerk and gave him certain information and suggestions regarding the Competition, which he still has. He was anxious to get it, because he wanted to get the Competition moving. He has not been able to do so yet, and I think if the incoming Council, with a new President, could bring some pressure on the Town Clerk, and through him, on the City Council, you may get this Competition moving. The time is getting ripe for it to be launched, because most of the underground work will be soon finished, and things will be ready for the preparation of the Park proper.

(Motion carried).

MR. WATERHOUSE: Though I hesitate to speak again, I feel that we ought also to consider the question of the retention of the Hyde Park Barracks. I know there is a great deal of difference of opinion as to the value of the structure, but occasionally an old building will carry on the traditions of our past history, and is worthy of retention. The action of the Mosman Council in deciding to retain the "Barn" of the whaling station at Mosman is an example to encourage us. Apart from its usefulness (and I contend that it can be put to use) the Barracks Building is beautiful in its simplicity and character. It has been said that it may interfere with the proposed scheme for the remodelling of Macquarie St., and the erection of the new Mint, Parliament House and Sydney Hospital, but I think it can very fittingly be worked in as part of the complete scheme. If the Institute is to remain inactive in regard to probably one of the biggest civic improvements that is possible in our time, I think we shall fall lamentably short of what the public expect of us, because it is to the technical bodies that the public appeal. They expect an expression of opinion on these matters. They are willing to support any movement which they feel is for the betterment of the City, and it is for us to put these matters before them in a convincing way, and thus force the hand of the Government. We have so little interest in and recognition of tradition that I think any small building which can be isolated from its present chaotic state would be something which the future generations of Australia would value, and thank us for having accomplished. I hope not only the question of the Parks, but the whole treatment of Macquarie Street will be something which will be considered by the Council. I move:

"That the Council be asked to take this matter up."

MR. HARRIS: In seconding that motion, I would like the mover to add that the Historical Society be asked to co-operate.

(Agreed to by mover; motion carried).

MR. NELSON made a suggestion to the incoming Council that the old custom of having calendars be revived.

ANNUAL GENERAL MEETING

2nd FEBRUARY, 1926

SIR CHARLES ROSENTHAL (President) in the Chair.

THE CHAIRMAN presented the Council's Report for 1925, and invited frank and candid criticism.

COL. WELLS moved: "That the Report be received." He said: I would like to congratulate our President, Vice-President and all concerned in the elective positions of the Institute. Their work has been very extensive and valuable. I did not notice any reference made to the question of furnishing bills of quantities. I would like to know whether any final settlement has been come to on that point with the Master Builders.

MR. MULLENS seconded.

MR. PEDDLE: One new feature was introduced quite late last year into our meetings, to which perhaps, as Treasurer, I should be opposed because it involves the expenditure of money, but of which I am going to speak in favor. I refer to the bread and cheese suppers. The little informal talks that we have at these social gatherings are most enjoyable and helpful, and I trust they will be continued.

CHAIRMAN: There was a reason for not referring, except in general terms, to this question of quantities, because we have not quite reached the final stage of solution yet. You will recall that we were supposed to submit quantities for work over £2000. Some of our architects (I must say, generally, with good reason) have not always been able to secure quantities for these jobs, and that more or less led to the possibility of friction, but when the explanation has been made that it is not altogether the architect's fault, I think the builders are then quite satisfied, although naturally still pegging away in their contention that we should get quantities for over £2000. Some time ago, by a majority vote, an instruction was given to the Council that the amount ought to be raised to £3000. Conferences on this matter will be held, and arranged for by the incoming President. At Canberra I met the President of the Master Builders' Association of Canberra (which is affiliated with the Federal Master Builders' Association), and he said they were quite satisfied to have the figure, not £3000, but £4000. I have arranged on my visit to Canberra next week to meet the Master Builders, and I will lay their views before the President of the Institute. We know that many of our builder friends who tender for work in the vicinity of £2000 to £4000, prefer to estimate the work in their own way, not in detail, as the quantity surveyors set it out, so there will still be conferences between the architects and the builders with a view to seeing if the amount cannot be raised to £3000. That is the instruction from the General Meeting, and I presume that will be the basis on which the Council will act.

MR. PEDDLE: The members who visited Canberra on the last occasion found that there were unfortunately some private buildings going up of a very poor type. I am inclined to think that we perhaps failed in our duty in not making representations to the authorities so as to strengthen their hands in controlling this work. I take it that it would be nothing short of a national disaster if many buildings of this type are allowed to be erected at Canberra.

CHAIRMAN: The Council very much regret that on account of private family reasons, our late Secretary, Miss Jagers, was obliged to resign her position. We appreciate the wholehearted, thorough and practical way in which Miss Jagers carried out her duties. Miss Chester has been appointed to fill the vacancy, and as one member mentioned, "We have not noticed any change; everything has gone on just as smoothly." MR. NELSON: I would like to move:

"That a vote of thanks be passed to Miss Jagers for her services to the Institute."

MR. BUDDEN seconded. (Motion carried).

A MEMBER: Has any report come in from the Education Committee?

CHAIRMAN: The only reference is in the report. Present indications are that there will be no examination at all, as I understand there are only two candidates. The last fortnight in March has been fixed for the examination by the Board, finishing on the 27th.

MR. GODSELL: The Board has asked the Royal Institute to accept the examination of the Board (which is on all fours with that of the Royal Institute) as equivalent.

(Motion for adoption of Report carried).

MR. PEDDLE: I have much pleasure in presenting and moving the adoption of the Balance Sheet and Financial Statement.

MR. DOBSON seconded.

CHAIRMAN: One feature we do appreciate—there are no outstanding liabilities. Everything has been paid up, and the new Council starts off clear with £805. Never before in our history has there been such a healthy position of affairs.

MR. HARRIS: In supporting the report, I should like to pay a tribute to the work of our Treasurer. This is the first general meeting for some time at which the Treasurer's report has actually been circulated amongst the members, and I think it is a great credit to our Treasurer.

MR. HOOK: I would also like to congratulate the Treasurer on his excellent report, and I am delighted to see that Mr. Peddle has decided to be his own successor as Treasurer. Personally I am pleased that the fusion has not bankrupted the Institute. When the question of reducing fees was under consideration, there were those who thought we were heading straight for the top of King Street, but we have come out well on the right side.

MR. WATERHOUSE: I would add a word or two in support of what Mr. Harris and Mr. Hook have said. I regard the Treasurer's feat as a marvellous one—it is simply wizardry. I do not know how he has managed to do it. What are we going to do with all the balance? It is a pity to hoard it up. We will have to pay income tax on it shortly. What about spending some of it on the Library? Seriously, I congratulate the Treasurer on the work he has accomplished.

MR. BUCHANAN: I would add my support to what has been said. We all realise the strenuous, painstaking and earnest efforts of our Treasurer. THE CHAIRMAN also supported the remarks made by previous speakers.

MR. PEDDLE briefly returned thanks for congratulatory remarks.

(Motion for adoption of report carried).

ELECTION OF OFFICE BEARERS.

The following officers were elected unopposed:

President: Mr. A. S. Hook.

Vice-President: Mr. B. J. Waterhouse.

Vice-Chairman: Messrs. A. W. Anderson and H. E. Budden.

Hon. Treasurer: Mr. J. Peddle.

Hon. Secretary: Col. J. H. Hurst.

Hon. Assistant Secretary: Mr. J. A. Kerr.

A ballot was held for the election of Members of Council, and the following gentlemen were elected:

Messrs. O. A. Beattie, J. L. Berry, W. De Putron, G. H. Godsell, R. J. K. Harris, J. D. Moore, R. Richardson, O. W. Weston, Prof. L. Wilkinson.

CHAIRMAN: In declaring Mr. Hook elected as President, I do so with a great deal of pleasure, particularly, as I mentioned this afternoon, in view of the fact that Mr. Hook did so much in his capacity as President of the late Architectural Association, to help to bring forward the amalgamation or fusion, which has proved so happy an event, and which has meant the consolidation of the architectural profession in this State in a way never attained before. I personally feel that if nothing else had been done during my three years of office than to have consummated this Union, it would have been very well worth while. When the Architectural Association was first formed (I happened to be away at the time) there was a good deal of reason for it, and it fulfilled a very useful function, but when the Board of Architects was appointed later, and registration was passed, a good many of the difficulties were wiped away, and the path made clear for an amalgamation of the two bodies, which meant a little sacrifice on both sides. The doubt expressed as to whether our finances would stand the strain has proved to be a bugbear. Our members sacrificed the designations of Fellow and Associate in order to bring all under the one common title of Member, which all our adherents now are. That gave us a common basis for the fusion of the two bodies. I think it is particularly fitting that Mr. Hook should be the new President, quite apart from the fact of his own qualifications. Mr. Hook has been appointed to a position at the University, to help Professor Wilkinson carry on the Chair of Architecture, and I am sure that in his dual capacity as one of the leaders at the University in Architecture, and also as President of this Institute, his voice will be heard in a very definite way in all matters coming before us during his term of office, on which a strong outspoken opinion is required. I am sure Mr. Hook's year of office will be a particularly happy one. Difficulties will arise, but if Mr. Hook gets, as I am sure he will, the wholehearted support of the Council, as I have had, he will have very little to complain of when he comes to lay down his task.

Before I ask Mr. Hook to take the Chair as President, I would like to convey to the members of the Institute my sincere and cordial appreciation of the help that has been given to me during the last three years. There have been difficulties, but they have been made comparatively easy because of the loyal support which has been given primarily by the Council, and invariably the members of the Institute have stood by what the Council has done, general members realising that the members of Council do give a good deal of consideration to the proposals which come before them, and ought to be, and necessarily are, in a better position to advise the members of the Institute generally as to what course should be adopted. In vacating the Presidential chair, I feel that I would like to extend to all the members of the Institute my own personal sense of deep appreciation for the help they have given. During the three years that have passed, I think the outstanding feature has been the amalgamation of the two bodies previously referred to. That in itself has been very well worth while, and notwithstanding the possible difficulties we foresaw at the beginning of last year, we have passed through a year which has brought about consolidation, and with the advent of some of the members of the old Association into the Council, the days have gone by to have anything in the way of a semblance of disunion among the architects of this State. Generally it seems to me that the future of the profession was never brighter than it is at the present time. There has been a very definite advance in the educational methods adopted both in the University and the Technical College. Generally there has been a very definite educational awakening, as far as the public themselves are concerned, to an appreciation of something better in architecture than has been the custom for many years past. As far as the work of the President is concerned, he is considered to be more or less a guiding hand; the aggregate wisdom which comes from the members of the Council goes a long way. During the past three years we have had the opportunity of making many important and interesting visits. We have visited Canberra, Kandos Cement Works, Port Kembla, and elsewhere. I suppose the members of the Institute hardly have any conception of the claims and calls for time that are made on the President and members of Council. Yesterday I happened to be in Dubbo all day (that involves two nights' travelling), trying to help the local people to solve a difficulty in the proposed remodelling of their School of Arts.

There are two architects in the town, and there was a difficulty in knowing what to do about a competition. That was satisfactorily adjusted yesterday. A fortnight ago, I made a journey to Newcastle to meet the architects of that city, to try and help them in a certain direction. The President is asked to help in competitions, and I must say in most cases, his help is gratuitous. After all, apart from the time, there is also the professional side. It does not mean remuneration in hard cash, but there is a very definite remuneration in the thought that one has been able to do something during the period he has held office which has helped along various schemes. During the last few years, there has been a good deal of contact with the Federal authorities. There have been a number of buildings developing, and the relationship at present between the Federal Institute of Architects (of which I happen to be President) and the various Institutes of the State, is very happy, and as a result, some of these bigger schemes have been thrown open in a very generous way, and I am hoping that the result, from the point of view of the architects themselves, will justify what the Minister has done in each case. Our

Institute has naturally taken an interest in those matters. The question of our relationship with the Master Builders re the quantity system has been mentioned, the question of uniform registration throughout Australia, the question of a uniform basis and status of all our Institutes, uniform conditions of contract throughout the Commonwealth; all these have been given attention to, and they have all meant a great deal of time. I have filled the Presidential chair for the last two years without competition, and I can only interpret that as evidence that for the time being I was good enough to fill the gap. Whatever my shortcomings may have been, I have tried to give of my best to solve these problems. Sometimes experience gained elsewhere, not necessarily architectural, helps one, and I would like to say that an outstanding feature of the last three years has been the unbounded cordiality which I have experienced, not the slightest semblance of friction in our Council meetings or elsewhere. Under these circumstances, when men are prepared not to spare themselves, there can be only one result. There have been differences of opinion, but the minority has always recognised in our Institute affairs that the majority must rule. In handing over the work of this Institute to Mr. Hook as my successor, I do so without a tinge of regret. There has not been an unpleasant episode during the three years. I think there has been a general advancement in architecture, not so much on account of anything I have done, but because of the team work which has characterised the work of the Council generally. I feel perfectly certain that under Mr. Hook's guidance, and with the experienced men now associated with him as members of the Council, there can be only one result, continued advancement and prosperity, and in vacating the chair, and in asking Mr. Hook to take it, I leave this position feeling very proud to have had the opportunity of serving the Institute for these three years, gratefully acknowledging the experience and knowledge it has brought to me, and also the help not only of the individual members of the Council, but of members as a whole. (Mr. Hook then took the Chair).

MR. HOOK: Sir Charles, Ladies and Gentlemen—You may find it difficult to credit it, but I am not really feeling very happy to-night. I am something like a fish out of water, or a "hook" out of water. I have just returned from a holiday at Palm Beach. On my return two of our morning papers insisted on my being photographed; in fact, I have been going at the double all day. There are many things I would like to say to you, but one is really too full for words at a time like this. When I carry my mind back four or five years to those hectic days of the first Registration Bill, I remember how I was first ushered into the Council room of this Institute—one of the Bolshies. I felt horrible when I saw the President seated in that Chair, and I spoke in a very small voice myself. It was not long before I began to feel at my ease, but in my wildest dreams I never thought for one moment that it would ever come to pass that the Bolshie would, within a very few years, be elected to this position. It is no credit to me. This happy fusion which was brought about under Sir Charles some 12 months ago is of course really at the bottom of the whole thing. In feeling that possibly I may manage to hang on, I am very much encouraged by Sir Charles' remarks 12 months ago. It was his architectural modesty which prompted him to say that it did not much matter who the general or commander was so long as he had a good Council. In my case, that is very encouraging, because I know we have a splendid Council, and I feel sure that with its aid, I will just manage to keep

my head above water in spite of all these grave matters before us. We have to tackle this question of the Hyde Park competition, in which there will doubtless be a considerable amount of work. We are also interested in the tightening up of the provisions of the Architects' Registration Act, so that unqualified persons may not be allowed to practise. They cannot call themselves architects, but it does not go quite far enough. I think it should go further in the interest of the public. When one sees beautiful suburbs absolutely ruined by all sorts of abominations, one feels it is not a question of doing something to help the architects, but something to help the public, so that these abominations may be cut out. The most important architectural problem is that of the small house. There is no more difficult or pressing question to be solved, and it will demand the best brains of the profession. We know why the best brains have not been directed towards this end. The fees are too much for the small men; there is absolutely no profit architecturally in a small house, and that is why it gets left. It is up to us to find some way of dealing with this question. Mr. Hill has a scheme which he desires to bring forward, and I have a scheme myself, which will result in the best educational brains in the community being directed to this matter, and put at the disposal of the public at a figure which they will be willing to pay. I am convinced there is nothing more important. It is an absolute crime to see a city set in such glorious surroundings being spoilt by these abominations in which people have to live. We could not do a greater work than tackle this. It has been tackled on similar lines in other countries with considerable success.

There is also this ever present problem of quantities with our friends the Builders. I hope that one particular aspect of the coming year's work will be that we shall have splendid attendances all the time. I would like to thank you, Sir Charles, for the kind words with which you have welcome me. It is no small task to follow after three years of such a Presidency as yours has been, and to bring to the task anything like the enthusiasm you have brought to it, but I can only assure the members that I shall do my utmost, and I know that you and the whole of the Council will do your utmost, as you have always done, to assist the President. Ladies and Gentlemen, I thank you most sincerely.

MR. WATERHOUSE: Three things I would like to say as briefly as possible: First, to thank you, Sir Charles, not as a Vice-President, not as a Councillor, but as an ordinary member of this Institute for the work you have done on behalf of the profession during the last three years; secondly, to congratulate Mr. Hook upon attaining the blue ribbon of the architectural profession. Mr. Hook knows what I think of him, and he is passing across the architectural firmament like a brilliant meteor; thirdly, I have been so long Vice-President that I would like to say that anything I have been able to do in the past to assist other Presidents, will be rendered to Mr. Hook. I move a vote of appreciation to our late President, coupled with one of congratulation to our new President.

MR. HARRIS seconded motion.

(Carried with applause).

SIR CHARLES ROSENTHAL and THE PRESIDENT briefly responded.

NOTICES

AUSTRALIAN WAR MEMORIAL —
CANBERRA ARCHITECTURAL
COMPETITION.

Notification has been received that, as a result of representations made by Australian Architects in the United States of America—who, owing to unavoidable delays in mails due to shipping trouble, were unable to forward questions within the proscribed period—approval has been given to extend the time for receipt of design in connection with the Architectural Competition for the Australian War Memorial at Canberra until Noon on Friday, the 30th April, 1926.

FOR "ARCHITECTURE"
STRUCTURAL STEEL:
AUSTRALIAN STANDARD SPECIFICATION:—

THE Australian Commonwealth Engineering Standards Association announces that the

Tentative Australian Standard Specification for Structural Steel and Rolled Steel Sections, which was published in March, 1925, will be reviewed for issue as an Australian Standard Specification in March next. The policy of the Association is to issue each of its specifications in tentative form for a period of twelve months, during which time constructive criticism is invited. All criticism submitted to the Association is referred to the Section Committee concerned for consideration when the specification comes under review.

Manufacturers and users of Structural Steel and others interested in the specification in question are invited to submit suggestions for the revision of the Tentative Specification to be forwarded to the Headquarters of the Association, "Macleay House," 16 College Street, Sydney, not later than Saturday, the 13th March, 1926.

CORRESPONDENCE

The Editor,

Dear Sir,

With reference to the January, 1926, number of "Architecture," we notice on page 20 the statement made in connection with the Sprinkler protection of Messrs. David Jones, Limited, that the Installation is the largest Sprinkler Installation of its kind in Australia. We beg to advise you that we think a mistake has been made in connection with this, as, assuming of its kind you refer to Departmental Stores only, ignoring the other States, in Sydney alone there are Blocks, such as

Messrs. Farmer & Co., Limited, including the new building; Grace Bros., Limited, and Anthony Hordern & Sons, Limited, which are very much larger than this Installation, and, of course, there are very many bigger Installations in other types of risks.

We should esteem it a favour if you would be kind enough to correct this at your convenience, and are

Yours faithfully,
WORMALD BROS., LTD.,
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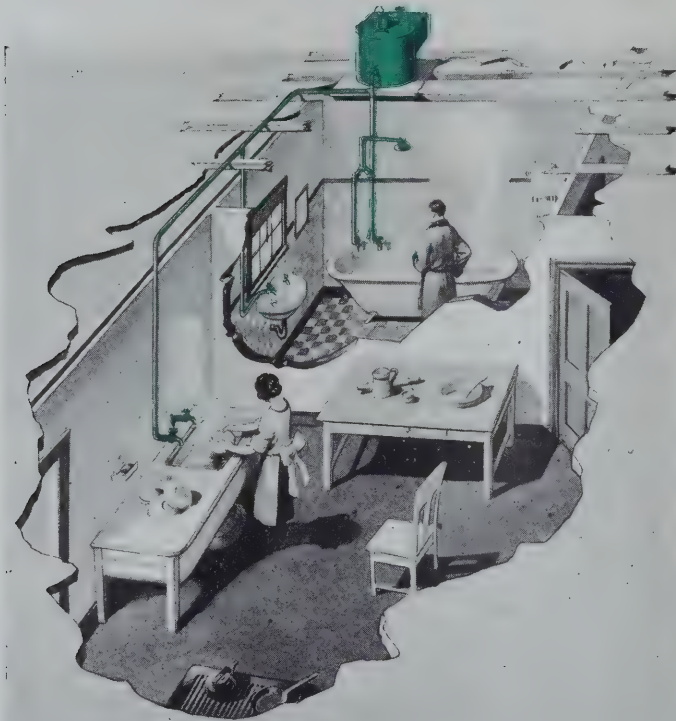


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Dr. W. Maher (Double Bay)

Some of our larger Installations include:

LITHGOW HOSPITAL, Lithgow, N.S.W.
KING'S HEAD HOTEL, Corner Park & Elizabeth Streets, Sydney.
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PALMER'S LIMITED, Corner Park & Pitt Streets, Sydney.
SIR JOYNTON SMITH'S new Residence, Coogee, Sydney.
Dr. G. J. SLY'S Residence, Darling Point, Sydney.
also new
ST. JAMES' THEATRE, Castlereagh Street, Sydney.

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ARCHITECTURE

THE JOURNAL OF PROCEEDINGS OF THE INSTITUTE OF ARCHITECTS OF NEW SOUTH WALES

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March, 1926

RAMBLES IN NEW SOUTH WALES

By X.Y.Z.

In "The New Monthly Magazine and Literary Journal" (London) 1828

THE Western Road always appeared to me the most interesting of any of the roads from Sydney. The Northern, or Windsor Road, though exhibiting a good deal of traffic in settlers' cart and waggons, of wheat and maize, and droves of pigs from the rich banks of the Hawkesbury, has rather too much of Whitechapel about it; and the Liverpool, or Southern, Road, must be travelled the distance of thirty or forty miles—say as far as the Cow-pastures and the fine properties of Kirkham, Camden, etc., before you emerge from the forest. But the Western Road is the romantic road, because it leads directly to the Blue Mountains, to Bathurst, and thence the Lord knows where. We all know it begins in George Street, but who shall determine where it stops? Think of a straight road from the King's Wharf in Port Jackson, to the King's Wharf at the Swan River, which his Majesty's ship *Success* is now surveying. This might be called the Great Western Road par excellence, and would put to blush its namesake, the great western road to Bath and Exeter. Such a road could not be less than three thousand miles in length, through a temperate and agreeable climate and never at any great distance from the sea-coast. Much humbler roads, however, than this will serve the Australians of the nineteenth century, but inasmuch as our navigable rivers are alleged against us, in so much should the necessity for good roads be always kept in mind. The defects of nature must be made up by art. With the exception of England, and some parts of France and the North of Europe, I have no hesitation in saying that the roads in New South Wales, as far as they go, are among the finest in the world. The present Government has paid unceasing attention to them; they are in all places safe, in many beautiful, and only want an English mail coach to rattle over them. I speak, of course, only of the low country. The mountain roads are

in a state of progress, of which there will be an opportunity of speaking by and by, when we come to them. Let the mountain traveller in search of land, ere he start, look to his horse. He should be a compact gelding, not over fifteen hands, sound legs, in good condition, with an old easy saddle, well stuffed, that fits his back, and let him be well shod before he starts as there is a hundred miles without a blacksmith.

The Sydney toll-gate is, in point of convenience and architectural embellishment, quite unique, but being in the Gothic style, is perhaps, rather too light for the rough purposes of a public turnpike, though it would look admirable as the entrance lodge to some of the Colonial parks of our richest settlers. It is decidedly the Hyde Park corner of our Western Road, and with the addition of some well arranged lamps might safely bear a comparison with that celebrated, gay, and bustling entrance into London. The ill-natured remarks that were once made about this pretty trifle of Governor Macquarie's appear now perfectly contemptible. He looked to the gradual advancement of the Colony, and built accordingly. Though the old gentleman was charged with wasting the public money in a lavish taste for useless buildings, for mere ornament, it is due to his memory to say that every structure in or near Sydney affording to the eye of taste the least pleasure or satisfaction, is Macquarie's. The public buildings around this toll-gate are, the Benevolent Asylum, a large, spacious, and handsome building, for the reception of the old and infirm poor, supported by voluntary contributions, standing in a fine healthy situation, and productive by its good management of the greatest good to Sydney, where such a thing as a beggar is never seen; the other is called the Carters' Barracks, an extensive Government establishment, containing a large tread-mill for the punishment of refractory prisoners, while the

principal part of the building is devoted to the reformation of the juvenile offenders transported from England and Ireland. There young delinquents appear to be treated in the most affectionate and tender manner; their health and morals are not only most carefully attended to, but they have all the advantages of good teachers in their school which lasts six hours a day. No school in England can boast of such an ample playground as these young rogues enjoy after their roast beef and New Testament is over; and when one rides past and sees them in all the hilarity of youthful mirth, enjoying the Government swings and playing at cricket, bat and ball, leap-frog and prisoners'-base, it never occurs to the spectator that these can possibly be the identical urchins who have so much infested the London streets of late years, and given the Recorder of London such trouble when they have been arraigned before him at the Old Bailey. Now they are in a fair way of beginning the world *de novo*, and are likely to turn out honest men. On the right is the elegant and

hospitable mansion called Ultimo House, which will not only be remembered by hundreds in the Colony, but by many officers of rank in England and India, who have formerly partaken of its crowded entertainments. On the opposite side of the road, about half a mile off, stands one of the best built houses in the Colony, called Cleveland House, and farther on, at the bottom of the hill, are the extensive flour mills, granaries, and distillery of one of the most industrious men in New South Wales; £20,000 is said to have been already expended on these works, which are on a scale of magnitude that would do credit to London itself.

We now get completely out of town, and the pretty little white circular buildings at intervals along the road, with a board hanging outside stating "A Constable here," explains what they are intended for, and give the passenger assurance of safe travelling.

BRITISH BITUMINOUS ROOFING

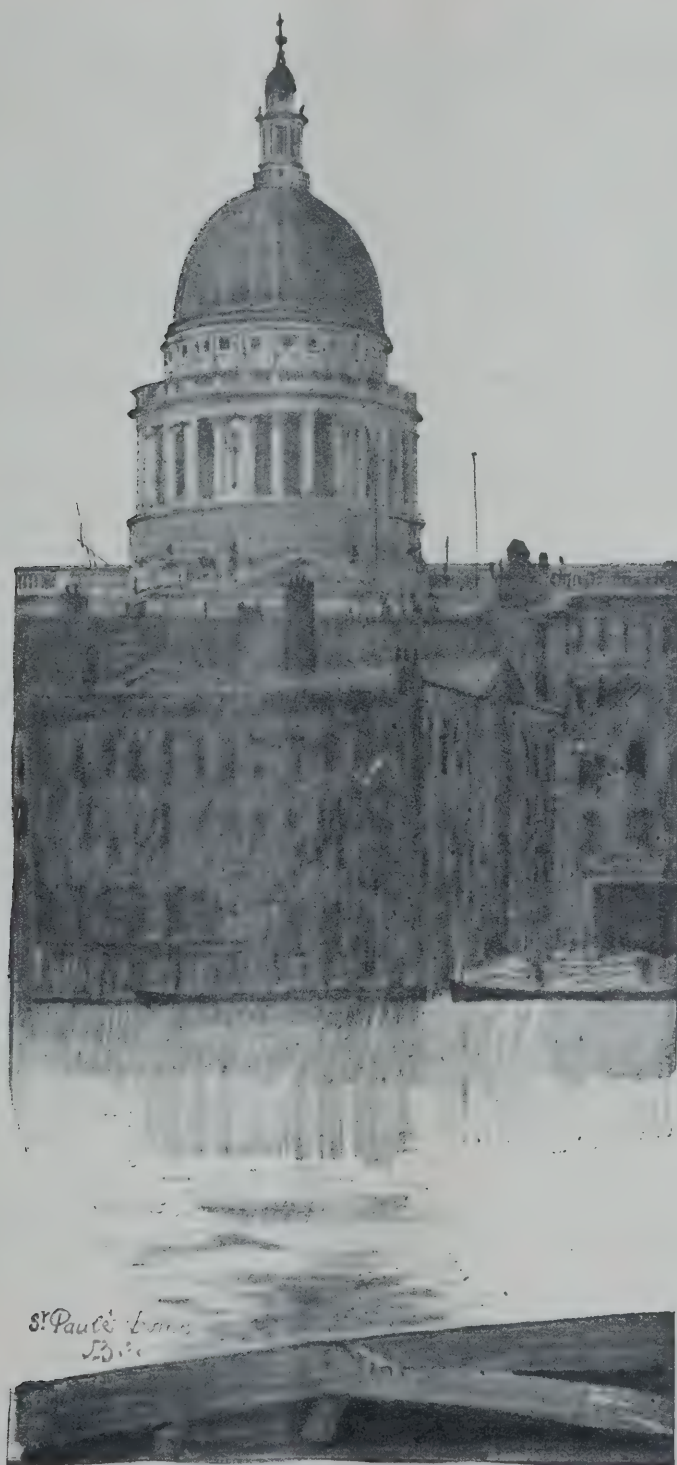
It is pleasing to note that the British firm of D. Anderson & Son Ltd. of London, Manchester and Belfast, represented in this State by Messrs. Noyes Bros. (Sydney) Limited, are making great head-way with their famous "Red Hand" roofing felt known the world over as "Rok." Numerous large buildings in Sydney are now covered with this well-known roofing.

Messrs. D. Anderson & Son Ltd. must be claimed as one of the oldest established and best known manufacturers of roofing and water proof felts in the world, the firm having been established since 1850 and were contractors for that year to the British Admiralty and War Office, which they have been ever since. It is worthy of note that during the recent War this firm supplied to the

War Office alone over 40,000,000 yards of their famous "Rok" Brand Roofing.

This British article, which is gaining such popularity, is composed of a strong and carefully prepared sheet of fibre saturated with elastic water proofing compound, which does not dry out or evaporate in any climate as it contains no oils or volatile matter and is coated on the surface with a permanent composition of natural bitumens of very high melting point, thereby making it a particularly suitable Australian covering for such a climate where extremes are reached.

We are pleased to bring these few facts to the notice of our readers as it is a commodity which is entirely British in capital, manufacture and labour.



ST. PAUL'S.
Pencil Drawing by John L. Berry.



CHINESE FIGURES IN IVORY & CLAY.

*Mother and child, ivory figure of the Ming Dynasty,
and two smaller clay figures of the early Tang
Dynasty.*

In the collection of Hardy Wilson, Esq.



CHINESE CLAY FIGURES.

*A warlike figure of the Wei Dynasty and a figure of
a lady of the T'ang Dynasty.*

In the collection of Hardy Wilson, Esq.



ST. JOHN'S CHURCH, CAMPBELLTOWN.

From a photograph by Cazneaux.



ST. MATTHEW'S CHURCH, WINDSOR, N.S.W.

From a photograph by Cazneaux.



ENTRANCE TO ST. JAMES' CHURCH,
KING STREET, SYDNEY.

From a photograph by Casneaux.



PENCIL DRAWING.

By Harold Herbert



*Mr. A. S. Hook, A.R.C.A. (London), the President
of the Institute of Architects of N.S.W.*

INSTITUTE OF ARCHITECTS OF N.S.W. ORDINARY GENERAL MEETING HELD 2nd MARCH, 1926

Mr. A. S. Hook, A.R.C.A. (London) (President), occupied the Chair. Apologies were received from Messrs. Peddle, Weston, Minnett, Kerr, Ritchie, Somerville, Beattie.

There were 40 members present.

The ballot for new members resulted in the election of Mr. Finlay E. Munro and Miss Ellice Nosworthy. Matters arising out of the minutes of previous General Meeting as follows were advised:—

Re Calendar: The President reported that Council has decided that at the present time it is not practicable to issue this. Letter sent to the late secretary, Miss L. M. Jagers, from the General Meeting was acknowledged. Central Station: Reported that steps are now being taken with

a view to making a general protest against the inroads made upon the space by booths and stalls.

Re matters relating to lay-out of Hyde Park, the Old Mint, Hyde Park Barracks, and the re-model-

ling of Macquarie Street: Advised that steps are now being taken by various Committees to deal with same, and that letters are being forwarded to the Lord Mayor and the Premier of N.S.W. with a view of arranging competitions where and when possible.

The President advised that invitations had been received for Councillors and Members to a luncheon being given by the Millions Club to Sir Bertram Mackennal, and that reservations would

be arranged by the secretary for any who care to attend; he strongly advised all who could to take the opportunity of hearing this artist, whose advice and criticism he considered of the greatest value to Australia.

The President said that, as an educationist, he was particularly delighted at a request which had been received from the Supervisors and Clerk of Works' Association of Australia, that a member of the Institute would deliver to their Association an address on any architectural subject.

The President advised that it had been found that the election of Mr. S. E. Coleman, though fully completed, was not in order, inasmuch as he was not then a registered architect under the Act, and he could not sign the declaration. When this was discovered he interviewed Mr. Coleman, who had immediately registered, and signed the declaration in connection with the Institute. It was now necessary that Mr. Coleman's election should be ratified by the meeting. Proposed by Sir Charles

Rosenthal, seconded by Mr. Harris, that Mr. Coleman's election be ratified. Carried.

The President advised that a cricket match and bowling match have been arranged between the Master Builders' Association and the Institute, to take place on 25th March, and that on the evening of the same day the Institute is going to entertain the Master Builders at a smoke concert in their own rooms. He expressed the hope that members would make a point of attending two at least of the functions, and so ensure great success.

Luncheon will be procurable on the cricket ground and afternoon tea and light refreshments will be provided free.

The President expressed his pleasure at having the company of the President and Secretary of the Master Builders' Association at the first meeting of the Institute's new year, and felicitations and expressions of good fellowship between the two bodies were several times exchanged during the evening.

NOTICES

Members are reminded that the Annual Exhibition will be held as usual this year in the Exhibition Gallery, Education Building, between the dates of 27th May and 19th June.

It is hoped that the excellent standard of previous years will be maintained, or even excelled, and intending exhibitors are requested to prepare their drawings in good time.

R.I.B.A. EXAMINATIONS FOR 1926

OWING to the requisite number of candidates for the holding of the R.I.B.A. Examinations in Sydney (3) not offering for the proposed April sitting, the examinations

have been cancelled for the present. On receipt of the necessary number of applications, a date, which will be duly advertised, will be fixed later in the year.

We understand that the Architects of Newcastle and District have formed an association to be known as "The Associated Architects of New-

castle and District"; this body is to be allied to the Institute of Architects of N.S.W., and will work under the same Articles of Association.

PRESIDENTIAL ADDRESS

By A. S. HOOK, A.R.C.A. (London)

When first I set foot on Architecture's long and weary road, I little suspected that some day I should find myself faced with the ordeal of reading a Presidential Address before Australia's oldest Institute of Architects.

Frankly, I don't like it—the *reading* of an address I mean—it is a thing I have hitherto managed to avoid—but if I am diffident concerning this, I am really nervous when I think of the task to which this is but the precursor. For over half a century now, this Chair has been occupied by men who have wrought well for their profession and their country, and it is no light matter for one to assume the responsibility of carrying forward the work they have already carried so far and so well.

But there was another thing that, at the commencement of my architectural journey I did not suspect—I had no idea of the delightful people I should encounter on the road. The acquaintanceships that were to ripen into life-long friendships, the chance encounters and even antagonisms that under the unifying influence of a common purpose and a common devotion were to change to treasured fellowship and communion, were alike undreamed of. That busy men, encumbered with the cares of important practices, would so unselfishly and so unceasingly give of their best for love of their profession and their fellow-men was something I had never expected to encounter in this Vale of Tears. But so, to my never ending delight, I have found it; and because this has been my experience, because I know that same spirit of fellowship and service that has characterised the past will be ever present through all the troubles and trials that lie ahead, I feel encouraged to press on and try, in my turn, to honourably discharge the obligation you have laid upon me.

I look upon it as a happy omen that amongst those gathered here is the gentleman who was the very first in New South Wales to extend to me the hand of fellowship. That was 14 years ago, and although in the intervening years it has been my good fortune to make friends far and wide, there is something more precious than words can express in the knowledge that those whose kindness first led me to love this land, are still the same, still ready to help, and to spend and be sent in the cause they love so well.

And such men form your Council, ladies and gentlemen; year in and year out they labour on, with little to encourage them and much to dishearten. But they do it because the task is there to be done, and they will continue to serve so long as architecture has need of them—and architecture will never cease to need them. To me it is the greatest possible honour to be allowed to work in such company. In such circumstances, how could one fail to enter on the task with enthusiasm and confidence? Confidence not in one's self, but in that abiding friendship and loyalty that unite all those who have devoted themselves to our Mother Art.

If I am delighted that my task commences under such congenial conditions so far as our own domestic affairs are concerned, I am also sincerely grateful to my predecessors who by reason of their own skilful, tactful, and kindly handling of all their dealings with their neighbours, have left a heritage of good-will between ourselves and all those with whom we must, in the nature of things, come into frequent contact. And with none more so than with our good friends the Master Builders' Association. It is true that in a week or two we are going to get back that Cup that last year they had the audacity to win from us on the cricket field, but we know that like the excellent sports they are, they will be delighted to see us do it—if we can. And then the same evening we are going to have a real Australian Surprise Party—we are going to entertain our Builder friends in their own rooms. That we are able to do this—instead of, as we rather feared, having to give up the fixture altogether, is entirely due to another of our oldest and staunchest friends—Mr. Godsell, who cheerfully accepted the thankless task of "Financial Organiser." That you will all make it a duty to be present and do your utmost to make both functions a huge success goes without saying. It is under such conditions and in such an atmosphere that the little differences that sometimes arise are smoothed away and the way paved to a better understanding of each others aims and trials and difficulties.

We want to get to know one another better, Builders and Architects, Painters, Sculptors, Engineers, and all who are engaged in sister arts and sciences. And if we can do it (and I dare say our "Financial Organiser" will say we can), why

should we not try to get some of our other friends along?

But whilst we are looking without, let us not forget to look within. For all my own experience of the really good fellowship that prevades our ranks, I cannot help noticing that there are some of our members who do not seem to come as much into our general circle as we would like. I know what it is—it is simply diffidence—a disinclination to “butt in.” I was that way myself once—until I discovered how much I was losing. But I think we can speedily remedy this. If one or two gentlemen (preferably with good memories for names and faces) will be good enough to volunteer their services as a sort of social committee, and make it their business to help people to get to know one another, we shall all be the happier, and our attendances will be kept up and even improved.

I do want to see our meetings well attended. Your Council and its Committees have put in some very hard and continuous work during this last month. Six Committees handed in reports to to-day's Council Meeting, and most of these are but the precursors of harder labours to come. We can avail ourselves of very little bit of help you can offer us. If you can, and are willing to, help us please—(to quote a phrase that it, I fear, not altogether unfamiliar to some of my younger hearers) “Please see me after the lecture.”

But whether you can do this or not, please come regularly to our meetings. Last year we were privileged to hear a splendid series of lecturettes on every conceivable subject, and we don't intend to go back.

There are many important things to deal with in the coming year. There is, for example, the matter Mr. Scott introduced some months ago—the matter of increasing the powers of the Board of Architects so that it will be able to effectively discharge its task of regulating the practice of Architecture. For my part, I think the Board *should* have increased powers. It is all very well for the Board to be able to deal with persons who pretend to be Architects, but are not, but in my opinion it is much more important that the Board should be fully empowered to deal with any who legally are architects, but who show by “their actions that they should not be.” I believe this can be done, and many other desirable things also, without doing the slightest harm to the Institute. Indeed, I am inclined to think that it would be very much better for the Board to take over all the harassing details and questions concerning practice and professional relations that now keep our Practice Committee hard at work and occupy

much of the time of the Council; and so leave the Institute free to devote itself more to developing interest in architecture as a great Art and a vital necessity to a people's prosperity.

Another matter that must receive our immediate and serious consideration is that of Builders' Quantities for certain buildings. This, at times, has unfortunately caused a little friction between us and our friends, the builders (but not nearly as much as some reports would have us believe), and it is time, and more than time, that it was settled. And settle it we will.

Then there is another matter that I think calls for attention. Enquiries made concerning the statutory examination conducted by the Board of Architects clearly indicate that notwithstanding the existence of our two Schools of Architecture, there are many who, for some reason or another, cannot avail themselves of our existing educational facilities.

Men have come from overseas, or from other States, well qualified men often, but lacking in some technical qualification essential to enrolment as a legally qualified architect in this State. Such men have a just claim upon our sympathy, and I see no reason why we should not do something to help them. It would not effect the interest of the Technical College—we would most certainly see to that—and the University is not affected in any case, since no man, who has to earn his living can spare time for lectures during the day. Just what direction our efforts might take, I am not sure, but I feel sure we can arrange for some lectures, and that the Board will cordially support any such project. This would also, I think, be a boon to others who would like a refresher course before tackling other exams.—the R.I.B.A. final, for instance, or some of the Civil Service exams.

But fully as I recognise the importance of all these things (and your Council's attitude may be realised when I tell you that during the month we have been in office we have had one long round of committees, sometimes as many as three or four a day), there is one thing that I place absolutely in the forefront of my programme for the coming year—I do want to see something definite done to improve our small homes. I honestly believe this is the greatest problem confronting any community. Throughout the world, Governments are realising that the provision of workers homes is an obligation that no Administration can neglect, and live. Our own State Government is grappling with it even now, but they, like all other Authorities are faced with, what is,

I suppose, the biggest end of the problem—the provision of funds. But there is another question that concerns us particularly as architects—it is this, even if the money is found, are the people going to get better homes, or only more of the same old kind. Are they going to put up with what they have always had to put up with, or are we going to take up our end of the burden and try to give them something better than they have ever had before? Gentlemen, it is up to you. This much is certain, until we architects seriously tackle this problem, all our talk of a national style in architecture is sheer nonsense.

We *have* a national style in architecture—you can see it in every suburb—and we have made it. Yes, ladies and gentlemen, we architects are responsible, we *do* know better; most likely those who built those places, and many who live in them, do not. And so I say, we are responsible for our national style. For national style it is; it forms 95 per cent. of our building and dominates all. It is not the great homes of your Potts Point and your Wahroongah that mark your style (and just as well maybe, for Heaven knows some of them are artistic nightmares and architectural monstrosities), it is the small home that by very weight of numbers makes the general average what it is. Make your small homes right, and nine-tenths of your architecture will be right, and the odd tenth will take care of itself.

Since I mentioned this matter last month your Council has taken up this question very seriously indeed. One of its committees has been driven very hard indeed during the past month in the hope that at our next meeting we shall be able to place a definite proposal before you. I know we are tackling the biggest thing in our history as an Institute, and I believe we can make it one of the outstanding features in the history of our State. Anyhow, with your assistant, ladies and gentlemen, we are going to try.

Short speeches of congratulation and good wishes were given by Sir Charles Rosenthal, Mr. Speer (Master Builders' Association), Mr. Richardson, Mr. Waterhouse, Mr. Sydney Jones, Mr. Burcham Clamp, Mr. Phelps Richards (Master Builders' Association) Mr. H. S. Buchanan, and Mr. G. J. Hill.

Sir Charles Rosenthal hoped that the outstanding feature of the work of the coming year would

Of course, there is another question bound up with this. Do the people really want decently designed homes? It is a vexed question. Some say people get the homes they like, and that our domestic architecture is what it is because people want it so. Well, it may be, but we must admit we haven't given them much of a chance to try anything else. Nor have we done very much to educate people to what is good and what is bad in matters architectural; perhaps that is how it is that some of us still contrive to earn a crust. But seriously, I do think it is high time we made a serious effort to educate public taste. The opportunity is not wanting—ask the pressmen here, if they would not welcome for their building pages some definite and authoritative assistance along these lines. No, ladies and gentlemen, as I have already said, it is our own fault, we do not realise the opportunities that are awaiting us. But we must do so, if we are ever going to do anything enduring. Honestly now, I ask you, what is the use of educating our architects, of bringing them up on a diet of quiet dignified proportion, balance, fitness, and restraint; of sending them to study the well nigh perfect examples to be found in the old country, in Europe, and in America, and then bring them back to a public taste that clamours for smartness and trickiness, for tuck-pointed brickwork as smooth as hypocrisy, for fret-cut verandah brackets, plaster gee-jaws and dewdads and all the specious "ornament" that characterises so much of our present day work.

No, ladies and gentlemen, it won't do, this problem, like the other, just has to be faced, and the two are inseparable.

I am afraid I've let the cat out of the bag; you see I'm an educationalist, first, last and all the time. Well, I'm not particularly ashamed of it, and if your trying the experiment of having one in your Presidential Chair results in our obtaining a few new view points on these vital matters, I shall feel that I have perhaps done something to justify the great trust you have placed in my keeping.

be the successful development of the scheme for small homes as outlined by the President. He was sure that heart-whole assistance would be given to this work by many architects, as members of this profession are always ready and willing to work for the good of the community. He thought there were great possibilities ahead in the scheme proposed.

Mr. Speer said that he looked forward to a year of happy associations with the Institute and thought that the fact that the Presidents of both bodies were newly elected would make for sympathy and mutual assistance. He would be very glad to have the matter of quantities settled in the near future, as it was urgent. He said that the Master Builders' Association, in conjunction with representatives from the Institute, had recently formulated and forwarded to the Government a scheme dealing with small houses, and he hoped to see some definite results from the work done in this connection at an early date, as there was great need for a workable scheme.

Mr. Waterhouse said there was great need for collaboration between architects, artists and sculptors. He had recently received a letter from Prof. Wilkinson, who had asked him to express his congratulations and kindly remembrance of the members and the rooms of the Institute during his stay abroad. In his travels he had paid a great deal of attention to the various housing schemes, and had come to the conclusion that, in his opinion, there was nothing to equal the beauty of the English village homes. Mr. Waterhouse went on to say that he believed much of the domestic architecture was carried on, not by the architect, but by the builder, and in many cases the speculative builder, who was meeting the demand for the small homes; he felt sure that the builders who were doing this work would be delighted to copy a better style of architecture if such were available to them.

Mr. Sydney Jones said that he did not know if the members were aware that they beheld, in the person of their new president the Acting Professor of the Faculty of Architecture at the University of Sydney, and also, in the same person, the Dean of the Faculty of Architecture at the same University.

Mr. Moore said that he considered the poor type expressed in the present day architecture was the wish and will of the people—they got what they asked for. He thought that it would take a very long time to educate the popular taste to anything better, as it must be done in the schools, among the children.

Mr. Buchanan said he was sure that there would be found among the younger members many willing helpers to forward the proposed scheme regarding small homes. He was equally sure that they would have help and advice from the older members of the profession.

Mr. Hill pointed out the necessity for action and constructive work to forward the schemes outlined.

Sir Charles Rosenthal moved a vote of thanks to the President, which was seconded by Mr. Waterhouse and carried by acclamation.

The President responded briefly and invited all interested to afford assistance to the Council in the carrying out of the year's programme, which, he said, would need Herculean effort.

He then invited the members to refreshments.

Architectural Competition for Australian National Memorial to be erected at Villers Bretonneux, France

The closing date for submission of designs in connection with this competition is further extended to 31st July, 1926.

Department of Defence
Melbourne

T. Trumble.
Secretary

CITY OF SYDNEY IMPROVEMENT ACT

ON 3rd June, 1879, The City of Sydney Improvement Act became law, and for nearly 47 years its provisions have been operative, except for the little relief in connection with steel frame and reinforced concrete structures provided by the short Act in 1915.

Clause No. 5 of the Act provides for the making, altering, and repealing of by-laws for giving effect to the provisions of the Act, but this provision depended upon the activities of the City of Sydney Improvement Board, which Board only existed for a very short time, since when the provision has been ineffective. Clause No. 5 is, in any case, too cumbersome for present day conditions.

The basic fault of the Act is that it contains building regulations which, being law and failing the relief purposed to be given under Clause No. 5, are enforceable until the Act is repealed, whereas, a Building Act should confer powers to make regulations or Ordinances, and to amend or repeal them from time to time as our knowledge of materials, and of constructional methods increases and the Science of Building advances.

The need of a new Building Act has been felt for many years and in 1908 a Bill was prepared by the City Building Surveyor, but the Bill was never passed.

Through the activity of Mr. A. Stuart, brick-

master, interest in a New Act has again been stimulated.

A hurried meeting of representatives of the different bodies interested was called on 27th October, to meet the Lord Mayor, who promised to use his utmost endeavours to secure the passing of a new Act.

Following this, the Council of the Institute appointed a Committee. The Committee agreed to certain principles that should underlie any new Act, and reported to the Council, and the Council endorsed the Committee's recommendations.

A second meeting was called by Mr. Broderick on the 8th February, at which the Institute was represented by Mr. De Putron and Mr. Peddle. The views expressed at this meeting agreed, generally, with those of the Institute's Council, and a sub-committee was appointed to draft a new Bill. The members of the sub-committee are:—

Mr. Brodrick, Chairman;
Mr. Stuart, Brickmaster;
Mr. Pringle, Representing the Master Builders;
Mr. Patterson, Representing the Institute of Engineers;
Mr. Peddle, Representing the Institute of Architects.

It is hoped that this effort may lead to finality, and that in the not very distant future a new Building Act may be on the Statute Book that will meet every need of modern building.

CORRESPONDENCE

The Editor, "Architecture,"
Bond Street, SYDNEY.

Dear Sir,

In your February number of "ARCHITECTURE" you publish, on page 14, a letter which questions whether the "NEWTON" Sprinkler Installation, which is being installed in Messrs. DAVID JONES LTD.'S New Emporium, will be the largest single installation of its kind in Australia.

I would point out that the clause "largest single installation" is perfectly correct, as the installa-

tions of other buildings, while possibly larger, are split up into different risks, so that "ARCHITECTURE" is perfectly in order in its original statement. Furthermore, the Installation is a "NEWTON," and as such, it is certainly the largest single "NEWTON" Installation in Australia.

I should esteem it a favour if you would be kind enough to publish this explanation.

I am, Dear Sir,

Yours faithfully,

NEWTON-WITTER ENGINEERING COMPANY, LIMITED.

WILLIAM R. CHISHOLM.

W. L. CHISHOLM,

New South Wales Agent.

ARCHITECTURE

AN AUSTRALIAN MONTHLY JOURNAL

Published by ART IN AUSTRALIA LTD., SYDNEY

PRICE ONE SHILLING



"VENTNOR," COLLINS STREET, MELBOURNE

SCULPTURE AND ARCHITECTURE



Grandstand Royal Agricultural Showground, Sydney.

View taken from showing. Has an actual seating accommodation of 8,000, but during Showtime carrying as many as 12,000 people.

For the Biggest Grandstand South of the "Line" Ferrodor elastic Paint

THE whole of the iron and steel work has been painted with two coats of "Ferrodor" Paint, painted in March, 1924. Architects, H. E. Ross and Rowe, Sydney. Builders, Concrete Construction Ltd. Painters, J. Axtell. "Ferrodor" affords Perfect Protection from the forces of rust and corrosion. For over a quarter of a century, Government Buildings throughout Australia and the buildings and works of many well-known firms have been protected by "Ferrodor."

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ARCHITECTURE

THE JOURNAL OF PROCEEDINGS OF THE INSTITUTE OF ARCHITECTS OF NEW SOUTH WALES

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April, 1926

INSTITUTE OF ARCHITECTS OF N.S.W. ORDINARY GENERAL MEETING

HELD APRIL 6th, 1926

The President, Mr. A. S. Hook, A.R.C.A. (Lond.) occupied the Chair.

Apologies were received from Sir Charles Rosenthal, Messrs. Burcham Clamp, Burcham Clamp, Junr.; A. Somerville, J. S. Adam, W. Ritchie, J. Peddle, G. H. Godsell, and L. C. McCredie.

There were some 50 members and their friends present.

The President announced that the Cricket Match, Bowls Match and Smoke Concert arranged between the Master Builders' Association of New South Wales and the Institute had now been fixed to take place on Thursday, 15th April, and he expressed a hope that all would make a point of attending two of the functions.

The President also announced that the Institute had received an invitation to send delegates to the meeting of the Australian Association for the Advancement of Science, to be held in Perth in August of this year, and invited any members who might be visiting the West during that month to communicate with the Council with a view to arranging for such delegates.

The President then invited Mr. Norman Carter to give his promised demonstration of portrait painting. He spoke with much appreciation of Mr. Carter's kindness in undertaking such a daring experiment, and assured the audience that they would enjoy the demonstration, which he had once before had the pleasure of witnessing.

Mr. Carter chose the President as his subject, and in commencing his work spoke in part as follows:—

It is a pleasure to address an audience which is definitely interested in our craft. I look upon

it as a privilege, but am conscious of the responsibility. This is no light matter—to endeavour to do before an audience, however sympathetic, that which is most difficult to do in the solitude of one's own studio.

While I will strive to achieve a satisfactory completeness in the demonstration I am about to give, I cannot guarantee it.

You will readily understand that the whole field of methods in painting cannot be covered in the course of a short evening.

My endeavour will be to explain as far as I am able, the simplicity of fundamental principles in this or any other art or craft. Application differs, but not the principle.

I may speak of some things that most, if not all of you know, but I have been surprised so often at discovering that few people are conscious of what it is that the mind really sees through the eye.

This accounts for wonder expressed by people at the representation of some visible fact on canvas. They misunderstand a work of sculpture more easily because the sculptor actually works in the third dimension.

The painter can only suggest the third dimension by means of graduated tones. It then becomes a matter of learning to accept what is seen through the eye apart from knowledge of the objects seen. Herein lies the first great difficulty, for our knowledge will come between us and the frank acceptance of visible facts.

We see tones, forms, colours in infinite variety according to the conditions of light, and these visible facts are interpreted by the mind up to the limit of our knowledge into human beings,

animals, sky, earth, grass, trees, and so on. You all know that before we can speak fluently in any given language we must be able to *think* in that language. A painter speaks in a language and thinks in terms of tone, form and colour.

Architects recognise a prospective client or an infuriated one by this simple means. They are, to him, merely a more or less familiar grouping of tone and colour patches of varying forms. Anger, laughter, sorrow—are only variations in forms and tones. Do we ever stop to reflect on how rapidly the brain works by means of the faculty of observation. A figure of someone may move rapidly past an open door-way and in a second a multitude of facts have passed through the eye to the brain and as quickly have been interpreted to our understanding as a friend or an enemy.

One of the many difficulties of painting is to receive a vivid impression and to hold the essentials throughout a long period of work while transferring it to canvas. It is so easy to allow a hundred and one other impressions to claim the attention resulting in the chaos which is seen on the films of a camera after several exposures upon it. A little bit of everything and no clear statement of one observation.

There are hosts of beautiful things which are not appreciated as such because our knowledge will drag in some unpleasant association connected with them. Most of us have labelled things that are beautiful and things that are not according to some conventional form of knowledge and not according to observation of their intrinsic visible worth.

Some people despise certain forms of architecture simply because they are the exception rather than the rule in city or suburbs. Such people are blinded by preconceived notions and their simplicity of observations is paralysed. They cannot accept a beautiful thing because the mind has been too long used to fussiness and restlessness instead of simplicity and quietness.

Good design must be based on a keen observation of the broadness and simplicity of nature.

A painter in the course of producing a painting must work according to the same principles which any other craftsman works.

The work of painting the portrait occupied about an hour and a half, and held the audience enthralled at the wonder of the gradual developments of light and shade into the likeness of their President.

Mr. Carter, as he worked, chatted and commented on the art, technique, observation and principle of painting and sculpture as contrasted and allied to architecture.

By the end of the evening a striking portrait of the President of the Institute stood revealed, and a vote of thanks to the Artist proposed by Col. Wells and seconded by Mr. Munnings, was carried by acclamation.

Much appreciation and pleasure was expressed by these speakers, also by the President, Mr. G. J. Hill and Mr. J. F. O'Connor (Inverell).

The evening was closed by the invitation of the President to light refreshments.

THE SELECTION OF PAINT

PROBABLY no material used in the erection of a modern building requires so much consideration as the paint, and probably no material is given so little attention.

Primarily the qualities desired are:

1. Low prime cost;
2. Good hiding powers;
3. Large covering capacity;
4. Weather resisting properties;
5. Uniformity.

As in all other spheres, a scientific study of the question from the point of view of obtaining the best value for the client at the least cost, usually presents an excellent opportunity for an appreciable saving.

On the weather-resisting properties of the paint used, depend the life of the timber, roofing, and fittings, and it should be remembered that maintenance is cheaper than renewal. A comparison of the various products on the market as regards weather, hiding, and covering powers, taken into consideration with the cost per gallon, will point directly to the preparation which is the most

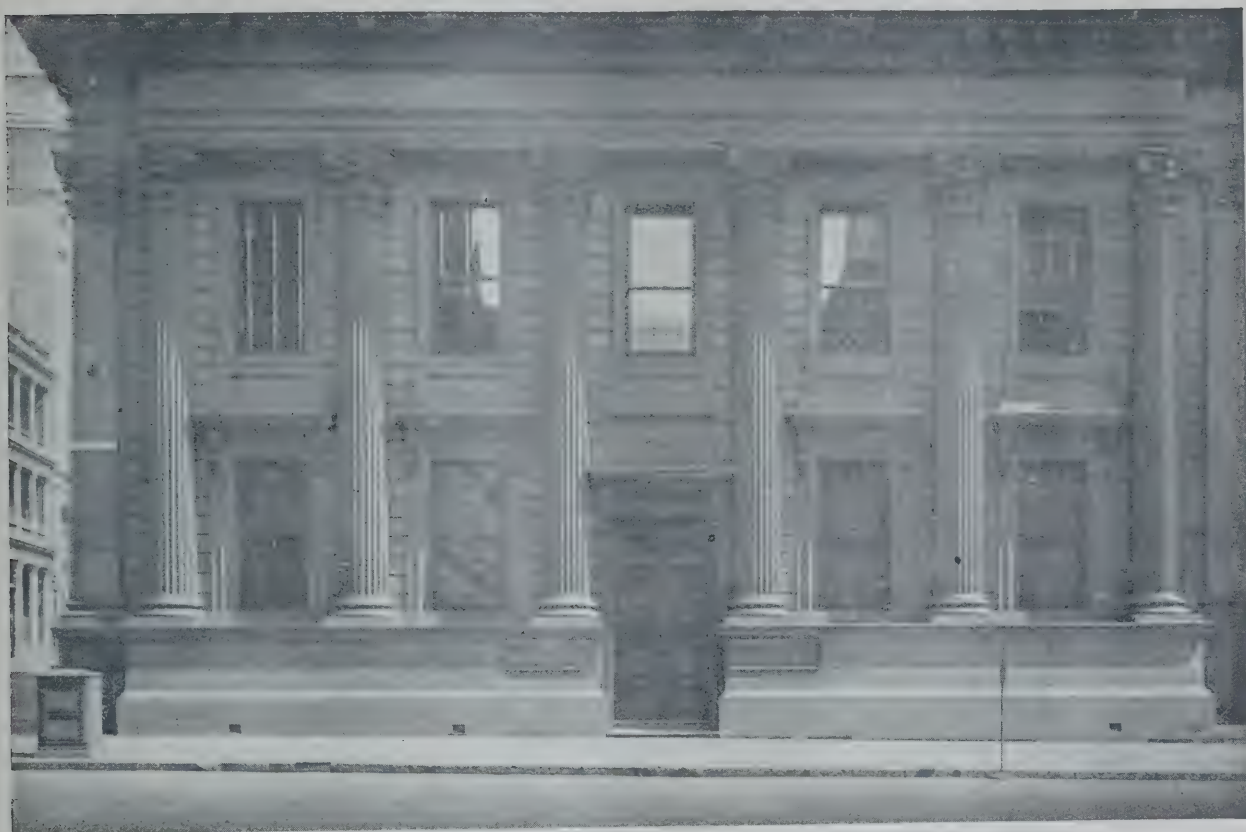
profitable to purchase.

Attention should also be given to the question of employees' health, and contractors and architects are well advised if they follow the world-wide movement for the restriction of the use of poisonous paints.

It is of interest to note the remarkable progress made during recent years of a Sydney firm whose paints are now used extensively throughout Australia, with particularly good results. The spontaneous approval given by the public to their products can be explained by the fact that the manufacturers have set the above principles as their ideal.

These paints, which are reasonably priced, have conclusively proved their possession of the desired qualities, and their uniformity can be best testified by the universal favour they enjoy.

Architects, builders, and home beautifiers can have no doubt of obtaining value for money, and of making a judicious selection if they follow the public in the lead it has given for the use of "Mascot" Zinc Paints.



OLD COMMERCIAL BANK, GEORGE STREET SYDNEY

While Burdekin House and the Union Club are threatened with destruction, it is a relief to know that this familiar facade has been preserved. In his history of the Sydney University, Robert A. Wallen writes: "This valuable gift by the Commercial Banking Co. of Sydney Ltd, of the stone work of the George Street and Barrack Street front, on the occasion of rebuilding, has been used for the enlargement of the Chemical Building, and has a noble appearance. The Corinthian pillars give classic dignity to it. They were for

seventy-six years a feature in the City of Sydney.

About contemporary in design with the older University buildings, it is as good an example of classic revival architecture as the University buildings are of Gothic. It was constructed in 1847, not long after George Street had grown out of the opprobrium of a bullock track. The architect, it is believed, was Sir Charles Barry, who designed the Houses of Parliament at Westminster."



"DAY."

"The Dance of the Hours." One of the reliefs in the vestibule of the Capitol Theatre, Melbourne. C. Douglas Richardson and Margaret Baskerville, Sculptors.

SCULPTURE AND ARCHITECTURE

By William Moore

There are definite signs that sculpture is going to be more widely introduced in adorning city buildings. Mr. G. H. Godsell, of the firm of Robertson and Marks, is one of those who believe that when sculpture can be introduced in its proper place it is a decided benefit to architecture. He has taken the lead in this direction, and has already done much.

At a time when the late John Christie Wright was unable to get employment in Sydney, Mr. Godsell engaged this brilliant young sculptor to design and model the reliefs which embellish the exteriors of the buildings of "The Daily Telegraph" and the Public Trustee Company. These works have a vigour and a breadth of design unlike anything produced in Australia. Mr. Wright, who had a big career before him, was killed at the war at the age of twenty eight, so the next artist engaged by Mr. Godsell was Eva Benson, who has carried out several important works. Her

first undertaking was the Roman frieze for Messrs. W. T. Waters & Co. building, King St. This was followed up by a set of reliefs illustrating the story of Cinderella, for the entrance of the Ambassadors Cafe, the size of each relief being 11ft by 5ft. Her next work was on a still larger scale. This was the designing and modelling of the spandrels above the proscenium arch of the Prince Edward Theatre, the subjects being the proclamations of the first Prince of Wales, and Prince Edward, the Heir Apparent, to-day. These compositions are carried out in boldly massed designs, which are well modelled throughout. This is the largest work of the kind carried out by a woman, the clay used for the two reliefs, which measure 13ft. by 11ft., weighing two tons.

This work, however, was surpassed in expanse by the two reliefs, "The Dance of the Hours (Day)" and "The Dance of the Hours (Night)" which were carried out as decorations for the



"NIGHT."

Another portion of the bas relief, "The Dance of the Hours," in the vestibule of the Capitol Theatre, Melbourne. Each of these two reliefs is 17½ft. by 9ft.

vestibule of the Capitol Theatre, Melbourne. The size of each is 17½ft. by 9ft. They were designed and modelled by C. Douglas Richardson and Margaret Baskerville (Mrs. Richardson), who have done a large number of works in Victoria. Both were well trained abroad, the one at the Royal Academy School, and the other under Professor Lantere at the Royal College of Art, South Kensington. One of Mr. Richardson's first reliefs was the one which surmounts the facade of the Melbourne "Age" office, while Mrs. Richardson was responsible for the sculptural work which was introduced in the interior of the Australia Cafe, Melbourne.

The largest relief of all is the frieze above the proscenium opening of the new St. James' Theatre, which is 30ft. long and 7ft. high. The subject of the group of plaster figures is Vanity, and it has been carried out in colours, the effect of which is heightened by the use of lights behind. It has thus one of the glamorous aids of the theatre. This relief was designed by Mr. Henry E. White, the architect of the playhouse, the modelling being done by Mr. E. W. McGowan, a member of his staff.

The medallion portraits of four great scientists, by A. Rayner Hoff, which relieve the facade of

the Physics Building at the University, is another example of sculpture's association with architecture. As they are seen from a distance, these heads are broadly treated and are effectively carried out.

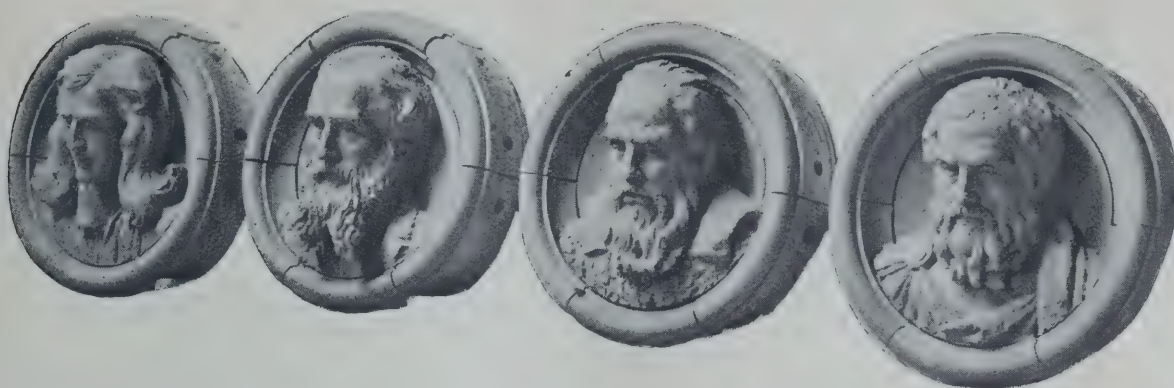
The Commonwealth Government, which has become a liberal patron of the arts, spent over £10,000 on the sculptural groups for the exterior of Australia House. Above the main entrance is the bronze group "Proebus Driving the Horses of the Sun" by Sir Bertram Mackennal, R.A., while flanking the entrance are the two marble groups by Harold Parker, the Queensland sculptor. It took three years to complete the modelling of Mackennal's work, the figure of the sun god being 14ft. high. The subjects of Parker's groups are "The Awakening of Australia" and "Peace and Prosperity." The art of sculpture lies in the modelling of the clay, many sculptors leaving most of the carving in marble to "pointers," who are specially skilled in this work; but Parker not only modelled, but carved these two large groups himself. It was thought that Sir Bertram Mackennal would be engaged to introduce sculptural adornments in some of the buildings at Canberra, but so far he has only been commissioned to do a statue of King George.



THE AWAKENING OF AUSTRALIA.

One of the exterior groups at Australia House.

Harold Parker, Sculptor.



*Medallion portraits by G. Rayner Hoff, Physics Building, Sydney University
The work is executed in Architectural Terra Cotta by Wunderlich Limited.*

NOTES AND NOTICES

MANLY TOWN HALL

ALTHOUGH the arrangements for the erection of a new Town Hall in Manly have not yet been finalised, the Mayor has approached the secretary of the Institute of Architects of New South Wales with a view of framing the conditions for the competition. The estimated cost of the building is £40,000, and it is to be erected on the present site. Provision

will be made for an up-to-date Electrical Department, which will have rooms for demonstrating the use of the latest cooking appliances. It is probable that an art gallery will also form part of the building. The gallery committee has secured the nucleus of a collection of Australian works which is now hung in the hall and the staircase of the present building.

ANNUAL EXHIBITION

Arrangements for the Annual Exhibition to be held between 27th May and 19th June of this year are now nearly completed. The opening ceremony will be performed by his Excellency the Governor General. Intending exhibitors are again reminded

to have their work in the hands of the Committee in good time.

The Annual Dinner will be held during the exhibition, but no definite date has yet been fixed.

MR. B. J. WATERHOUSE

Mr. B. J. Waterhouse, Vice-President of the Institute of Architects of New South Wales, leaves Sydney on a trip to Europe on May 15th. A

trustee of the National Gallery, he is interested in other arts besides his own, and has acquired several important Australian works.

A UNIQUE MEMORIAL

In "L'Illustration" an interesting account is given of a war memorial in France. It takes the form of a lighthouse (not one in the ordinary sense), which has been erected right in the heart of the cemetery of la Butte Sacrée, where twenty thousand French and foreign heroes, who fell near Vimy, are lying. The "Lanterne des Morts" is a tall white tower, which is at once a reliquary and a lighthouse, and it dominates a great plain, dotted with wooden crosses. At its base there is a large tomb, on which flowers and wreaths are laid, large crosses being carved on each side of the

tower. In the shadows are engraved some verses, from which we may quote this line:

"Peoples may you be united; human beings may you be humane."

In the interior, under a mosaic roof, the reliquary has been built to receive the remains of the unidentified dead. On its right is the basilica, consecrated to Our Lady of Loretto, which takes the place of the chapel, which formerly was the scene of so many pilgrimages.

ST. JAMES' THEATRE, SYDNEY

THE MODERN PLAYHOUSE

When you enter St. James' Theatre you notice that all parts of it are reached from the front, and later you observe that the upper circle has pink moquette turn-up seats, the same as the stalls and dress circle; and it has a lounge identical with the floors below. It is a democratic theatre, and with it we see the passing of the gallery, which has become grandiloquent as the grand circle.

Another thing to be noted is the breadth and shallowness of the auditorium, which brings those in the back rows nearer the stage than in the averaged sized theatre. Behind the scenes one observes that they have done away with the call boy, the company being called by 'phone. A switch in each room enables the leading lady to ring up the stage manager, or the leading man to enquire about a property.

Although the architecture is based on old world styles, they have been modernised by an architect who has never been in Europe. Mr. Henry E. White, F.I.A., F.N.Z.I.A., has acted in a threefold capacity as architect, engineer, and artist. The engineering problems in connection with St. James', with its deep basement and super imposed roof garden theatre, which will be completed by Christmas, called for an extensive knowledge of engineering. The whole of the appointments were carried out according to his designs. The colour scheme was his creation, and the ornamental plaques and medallions and the frieze above the proscenium were modelled from life and cast in plaster under his direction, at his headquarters in Phillip Street. He did not manufacture the curtains nor the carpets, but they were carried out, in each instance, on a decorative scheme composed by himself. All these elements were arranged to harmonise with the design and colour of the auditorium, whose main features are the dome chandelier, and the boxes, dominated by spacious arches.

Although the building is not yet completed, the exterior may be judged from the drawing reproduced.

The architectural treatment of the elevation to Elizabeth Street is a modern application of the

classic, the main feature being in the form of a Grecian Corinthian Colonnade occupying the whole front of the Theatre portion of the building, set in and relieved by the simply treated wall faces of the portion of the building occupied by offices. The two end features are rusticated, giving an appearance of solidity, and unity is obtained by a massive cornice with bronze cresting and a central link surmounted by a parapet and acroteria, giving an interesting skyline. The two balconettes on the end features give scale to the whole facade. A suspended awning designed in harmony with the remainder of the building and enriched with ornamental bronze work and crystal glazing extends the full width of the facade.

The architectural treatment of the elevation to Castlereagh Street is a free application of the Renaissance, and occupies the whole of the theatre portion of the building at the rear of the stages. The large blank wall spaces usually associated with this class of building are relieved by the skilful arrangement of dressing room windows, pilasters, arches and ornamental panels, and four large ornamental metal lamps, and to provide a ready means of escape from the dressing room wings and the stages of the two theatres. Balconettes supported on ornamental consoles extend the full width of the facade at the lower and upper Fly Gallery levels. The lower portion of this facade is occupied by display windows and a suspended awning architecturally treated in bronze extends across the whole front. The Colonnade Vestibule and Foyers are designed in the classic style and are spacious and dignified.

The Auditorium of the Lower Theatre is designed in Adams style freed from the heavy enrichment so frequently seen in this style of decoration. The colour scheme is silver and blue, relieved by gold enrichment, emphasising special features. The carpets, draperies and upholstery have been designed by the architect to harmonise with the general scheme of decoration. The Auditorium of the Roof Garden Theatre is designed in a more severe classic style, the Grecian Ionic order forming the basis of the composition, the colour scheme being in harmony with this style throughout.



ST. JAMES' THEATRE, SYDNEY.

Architect, Henry E. White, F.I.A., F.N.Z.A.



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THE INSTITUTE OF ARCHITECTS OF N.S.W. ANNUAL EXHIBITION

The Annual Exhibition will be held in the Art Exhibition Room of the Education Building, Loftus Street, Sydney, from Thursday, 27th May, to Saturday, 19th June, 1926, both days inclusive.
There will be no charge for admission.

CONDITIONS.

1. Any Architect, Painter, Sculptor, Designer in Applied Arts, or Student in Architecture, may submit Exhibits.
2. Exhibits are limited to work not previously exhibited at an Annual Exhibition of the Institute.
3. There will be an Entrance Fee of 2s. 6d., and same must be sent with each exhibit. Half the Entrance Fee will be retained in case of rejected exhibits. Students' work will be admitted free.

SECTIONS.

1. Designs for Public and Commercial Buildings.
2. Domestic Work.
3. Ecclesiastical Work.
4. Memorials.
5. Town-Planning, Lay-out Schemes for Gardens, etc.
6. Models.
7. Sketches of Architectural Subjects (any medium).
8. Designs or Examples of Furniture, Stained Glass, Wallpapers, Metal Work, or other Applied Arts.
9. Sculpture. Wood Carving, Modelling, Metal Work.
10. Measured Drawings and Drawings of Buildings of Historical Importance.
11. Students' Work.
12. Construction Details.
13. Mural Decoration.
14. Competitive Drawings.
15. Imaginative Architectural Conceptions.

NOTE.—The above exhibits will include Scale Drawings and Models, Details, Perspectives, Photographs, etc., connected with such work.

Explanatory plans should accompany elevations, perspectives, photographs and models, wherever practicable. Small marginal plans would suffice.

GENERAL CONDITIONS.

1. The Hanging Committee reserves the right to reject any work submitted.
2. Every work submitted must be signed. On the back of each exhibit must be pasted a label, stating:—
 - (a) The section for which it is intended.
 - (b) The Title.
 - (c) Name and Address of Exhibitor.

The above information must be repeated for the purpose of cataloguing on a tie-on label to hang over the front of the exhibit.

3. No copy of any kind will be admitted, except in Students' work. Measured drawings must be from actual measurements by the Exhibitor, and original sketches may be suitably attached.
4. All drawings must be suitably mounted on stretchers, or framed, and all to be subject to the approval of the Hanging Committee.
5. All rejected exhibits must be removed by the Exhibitors within three days from notification of non-acceptance.
6. All exhibits must be removed by the Exhibitors by noon on 21st June. Country exhibits will be returned, provided that postage be sent to defray cost of same.
7. All drawings intended for exhibition must be delivered at the Exhibition Rooms, Education Building, Loftus Street, Sydney, on 27th May, 1926. Delivery to be made between 10 a.m. and 4 p.m.
8. Every care will be taken of the exhibits, but the Institute will not be responsible for any loss or damage to same.
9. Any exhibit not complying with these conditions will be rejected.

The Exhibition Committee invites Architects to submit for selection a COMPLETE SET OF DRAWINGS, including preliminary sketches, working drawings and details of:—

(a) Residence.

(b) Commercial or Public Building.

The objects of this Exhibit are twofold. Firstly, to interest the profession generally, and secondly to demonstrate to the public the amount of study and work involved in designing a building.

The Drawings should not be mounted, but should be bound in sets so as to be easily handled and displayed. They should be marked "Complete Drawings," and submitted not later than 4 p.m. on 27th May, 1926, addressed to the Exhibition Committee, Education Building, Loftus Street, Sydney.

A Prize of 5 guineas has been donated by Mr. Joseland for the best exhibit by students under Section 10. For further conditions apply to the Secretary. The Donor reserves the right of withholding the Prize should the exhibits be considered of not sufficient merit, or should there not be more than three competitors.

All communications must be addressed to the Hon. Secretary of the Exhibition Committee, c/o Institute of Architects, 5 Elizabeth Street, Sydney.



*Entrance, "Denholm," Sydney.
Residence of John L. Berry, Esq.
Architect, John L. Berry.
Casneaux Photograph.*

INTERNATIONAL CONFERENCE ON HOUSING AND TOWN PLANNING

AT VIENNA, SEPTEMBER, 1926

*Under the auspices of the Mayor and Council of the city of Vienna, arranged by the International Federation
for Town and Country Planning and Garden Cities.*

President: EBENEZER HOWARD.

Vice-Presidents: Sir JOHN SULMAN, K.B.E., Austria; Stadtrat ANTON WEBER, Austria; Senator VINCK, Belgium; Dr. F. L. PROCHAZKA, Czecho-Slovakia; J. C. JENSEN, M.P., Denmark; SALEH ENAN PASHA, Egypt; Professor ELIEL SAARINEN, Finland; LOUIS BONNIER, France; Dr. R. SCHMIDT, Germany; VISCOUNT ASTOR, Great Britain; Dr. H. P. BERLAGE, Holland; CH. GIERLOFF, Norway; SALVADOR CRESPO, Spain; Baron PALMSTIERNA, Sweden; F. A. DELANO, United States.

The Council consists of representatives of the affiliated societies throughout the world.

Executive Committee: Dr. EINAR BOOK, Prof. A. BRUGGEMAN, Dr. OTAKAR FIERLINGER, CH. GIERLOFF, Professor J. GREBER, G. M. HARRIS, KAI HENDRIKSEN, Dr. D. HUDIG, Dr. R. HEILGENTHAL, Dr. H. KAMPFMEYER, A. KEPPLER, Dr. LILJEKVIST, G. L. PEPLER, JOHN NOLEN, ADOLF OTTO, C. B. PURDOM, L. S. P. SCHEEFFER, Dr. R. SCHMIDT, HENRI SELLIER, Dr. ERIK SJOSTRAND, CLARENCE S. STEIN, RAYMOND UNWIN, F. LOPEZ VALENCIA, R. VERWILGHEN, Senator VINCK.

Chairman of Council	ANTON WEBER
Chairman of Executive Committee	HENRY SELLIER
Deputy Chairman of Executive Committee	A. BRUGGEMAN
Hon. Treasurer	RAYMOND UNWIN
Hon. Secretary	C. B. PURDOM
Organising Secretary	H. CHAPMAN

Please address all correspondence to the Organising Secretary, International Federation, etc., 3 Gray's Inn Place, London, W.C.1.

Previous Conferences: Paris (1913); London (1914); Brussels (1919); London (1920, 1922); Paris (1922); Gothenburg (1923); Amsterdam (1924); New York (1925).

THE next International Conference will be held in Vienna in accordance with the decisions taken at the Amsterdam (1924) and New York (1925) Conferences, and in response to the invitations of the Mayor and City Council of Vienna, supported by the Austrian Government and the Austrian housing and town planning authorities. The principal subjects for discussion will be:

- (a) Examination of the conditions of land tenure in each country and of how far they permit practical results respecting town and regional planning.
- (b) The rational distribution of cottage and tenement houses.

Under the first heading will be discussed land ownership and leases and the uses to which land may be dedicated in town and regional plans, the acquisition of land (whether by private treaty or compulsory powers) where necessary for the plan, the exchange of sites, and all the land problems that it is necessary to solve so that the plans that are drawn up may be actually achieved. It also involves the study of regional and town planning in relation to existing and potential land values, a study of which is made the more necessary by the recent growth of regional planning and the larger areas that are now envisaged.

The second subject will provide for comparisons between the two types of housing development, their appropriateness under varying conditions, their respective costs, and their social advantages and disadvantages. It also involves consideration of the place in regional and town plans of both types of building and the relating of housing to town and regional planning.

The list of Papers and Special Reports on these subjects will be announced later. The Papers and Reports will be sent to delegates before the Conference.

Vienna is itself of much interest from the point of view of town planning and housing. It is the centre of an important region and has the status not only of a city but of a state of the Austrian Republic. The city has had a zoning plan since 1893 and a general plan since 1894. It has its large belt of forest and meadow amounting in all to 11,000 acres. A new town planning scheme is being prepared for the large town area on the left bank of the Danube.

During the difficult after-war conditions the City Council were responsible for building over 3,500 houses between 1919 and 1923. A five year programme of building was started in the autumn of 1923 to provide 25,000 dwellings. So far the

actual building is ahead of the schedule, for 6,700 dwellings were built in 1924 and 8,800 in 1925. The greatest part of the programme will be completed by the end of 1926. The one-family house for the poorer classes was unknown before the war, but of the above dwellings built since then 3,000 are of the cottage type.

Exhibition.—At the same time as the Conference there will be held an exhibition dealing with the subjects to be discussed at the conference.

This preliminary notice is sent to give an early announcement of the conference, which we hope

you will make arrangements to attend. An official invitation will be sent you at a later date and will contain the full programme along with particulars of the facilities offered to delegates.

Your faithfully,

EBENEZER HOWARD,

President of the Federation.

ANTON WEBER,

Vice-President, Chairman of the Council of the Federation, Vienna City Councillor.

COMPETITION FOR STUDENTS OF ARCHITECTURE JOSELAND PRIZE

Fon Best Collection of Measured Drawings

Conditions :

Open to bona fide students of architecture whose age does not exceed 25 years.

JURY: The Chairman of the Exhibition Committee or a Sub-Committee appointed by him. All work submitted must be:

- (a) The bona fide work of the competitor only.
- (b) Must have been executed within 12 months from the closing date, and must be accompanied by a statement embodying these facts duly signed by the competitor.

DRAWINGS to be on Imperial sheets mounted on strainers.

DRAWINGS to be in line only. Pencil or ink sections may be hatched.

DRAWINGS are to be fully dimensioned and details of construction where ascertainable clearly shown. In judging, the Committee will take the following into consideration:

1. Selection of subjects.
2. Method in survey, taking notes, and plotting.
3. Draftsmanship.

A full criticism on drawing submitted will be published in "Architecture."

The original notes and spot plottings, which need not be mounted, are to accompany the finished drawings.

Each set of drawings is to be delivered to the Secretary, Institute of Architects, 5 Elizabeth to have a plain unaddressed envelope containing

Street, on or before the 27th May, 1926, and is the name, address, and age of the competitor, also the declaration required under forms (a) and (b) above.

Drawing and envelope will be numbered in order of receipt by the Secretary.

Measured drawings of any building designed by the following architects may be submitted for competition. Should any student desire to submit drawings of any other building he must first obtain sanction from the Chairman of the Exhibition Committee, Mr. H. Joseland, 17 Castle-reagh Street, Sydney.

Any building designed by

The late Edmund Blackett,
Horbury Hunt,
W. W. Wardell,
F. Greenway,

Church at Muswellbrook, by the late Sir G. G. Scott.

Public buildings in country towns which were erected prior to 1875.

Should any competitor desire to submit drawings of only a portion of any building he must include a key plan indicating the relation of his drawings to the whole.

Every reasonable care will be taken of drawings submitted for competition, but the Institute will accept no responsibility for loss or damage from any cause whatsoever.

ARCHITECTURE

AN AUSTRALIAN MONTHLY JOURNAL

Published by ART IN AUSTRALIA LTD., SYDNEY

PRICE ONE SHILLING



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PARIS EXHIBITION, 1925

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ARCHITECTURE

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NECESSITY—THE MOTHER OF ARCHITECTURE

THE RESULT OF THE ZONING LAW IN AMERICA

By R. W. Sexton

Extract from "The International Studio"

IN the attempt to perfect mass design, intensifying on that problem to such an extent that ornament was relegated to second consideration, the architecture in American cities became a conglomeration of elongated boxes and ill-proportioned towers, marvellous feats of engineering skill, but lacking, in their design, the very basic principles on which architecture is founded. With buildings striving to outdo one another in height, the streets became canyon-like in appearance, the sun finding its way there only for an hour or two during the middle of the day, playing havoc with business, the very thing which the tall buildings were intended to aid most. From a land valuation point of view, conditions improved, which can be very easily understood when it is realized that three- and four-story buildings were replaced by others twenty-three and twenty-four stories high. But from an artistic point of view, an architectural viewpoint, they deserved little praise. The remedy seemed to lie in stabilizing in some way these soaring masses of various shapes and sizes. Such stabilizing could only come by law. No law could fix the shape or design of a building, but a law could fix its height.

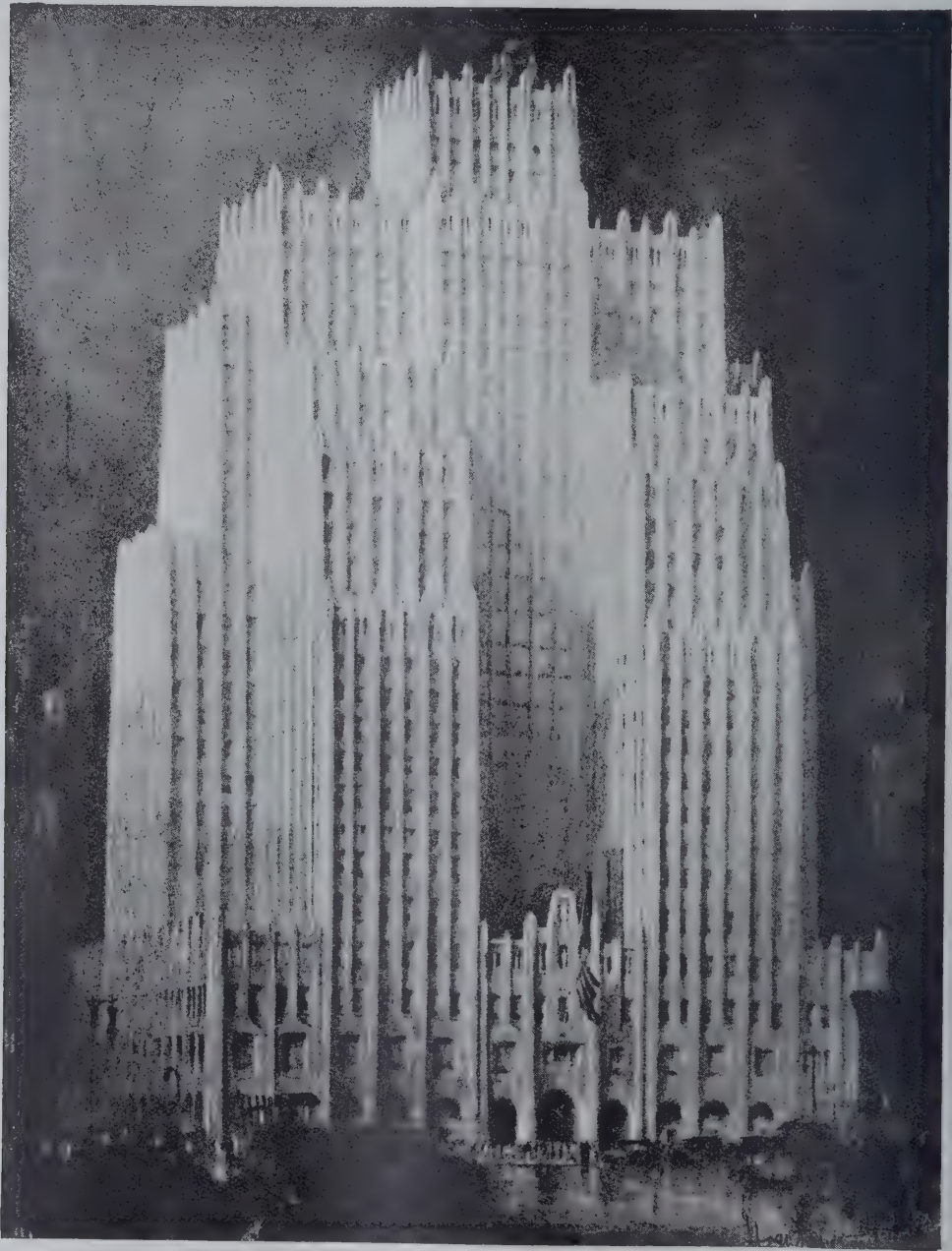
A zoning law for New York City, where the skyscraper had originated and developed, was suggested and promptly enacted, by which a structure is allowed to rise straight up from the street line only to a height determined by the width of the street upon which it faces. If the building is carried beyond that height, it must, from that point upward, slant backward, and must be kept within a line drawn from the centre of the street through the top of the wall on the street or building line. Different height allowances determine

various zones. The law of zoning means that a pyramid be superimposed on a cube. A pyramid is especially unsuited for windows, for example, unless they be dormers, so architects developed a series of set-backs or terraces that, as they stepped backward and upward, kept within the pyramidal line.

In certain other cities where a zoning law is enforced, as in Chicago, for example, the height straight up from the building line is fixed at so many feet and set-backs, also definitely established. There is a provision in the New York zoning law that upon twenty-five per cent. of the area of the plot the building may be carried to an unlimited height. This clause is responsible for the towers which frequently surmount these structures.

It was immediately foreseen that architecture in cities where a zoning law was in force would be unified to a very great extent by fixing the heights of buildings and somewhat stabilizing the mass, but it was not until the law had been in operation some little time that it was seen that the way had been paved for unifying architecture throughout the entire country. For actually, by thus stabilizing mass, ornament, which had not received the consideration it rightfully deserved before, was given greater importance.

In its mass, the modern skyscraper differs principally from the "old-timer" in that it emphasizes its height, which is its distinguishing characteristic, instead of attempting to diminish and even conceal it. Abiding by the conditions of the zoning law, it becomes a soaring mass, with its vertical lines, emphasized throughout in its design, seeming to extend upward to the clouds. Moreover, its ornamental details are actually out-



A sketch for the building for the Southwestern Telephone Co. in St. Louis, Missouri. This is an excellent example of set-back architecture which has sprung into being as a result of the zoning laws of New York.

(From the International Studio)



*Coast Division Building, Pacific Telephone Co., San Francisco.
Miller & Pflueger, Architects. A. A. Cantin, Associate.*

(From the Pacific Coast Architect)

growths of the structure, accounted for in every case, accentuating the architecture, as all ornaments should, so that it becomes in reality a part of the architectural design, and not simply applied to it.

In other words, this reborn skyscraper, though still in its infancy, represents a new style of architectural design. It is based throughout on architectural principles, and neither adapts nor reproduces old-world motifs in its design, nor breaks any of the basic and fundamental laws on which architecture has ever been founded. The

American skyscraper has come into its own! It is American now throughout. We can look to it, as it stands to-day, as the forerunner of a distinctive American style of architectural design.

Architects in other cities, not forced by law to observe the set-backs, have adopted the principles on which the new skyscraper is based, so that instead of being merely a New York institution, as it has generally been considered, the modern skyscraper of to-day is an American type of building, designed in an American style.

NOTES AND NOTICES

ANNUAL DINNER

The Governor-General will be the guest of honour at the annual dinner held by the Institute of Architects at the Hotel Australia on the evening of June 8th. The conversazione will be held on June 15th.

THE BROCHURE

Besides the foreword, Professor A. S. Hook has contributed an article on Architectural Education to the Brochure, issued by the Institute, in connection with the annual exhibition. Mr. Howard Joseland has written on "Gardens in Relation to the Home," and Mr. Keith Harris has contributed an article on "International Exhibitions." It is the only publication of the kind, which is given free at exhibitions.

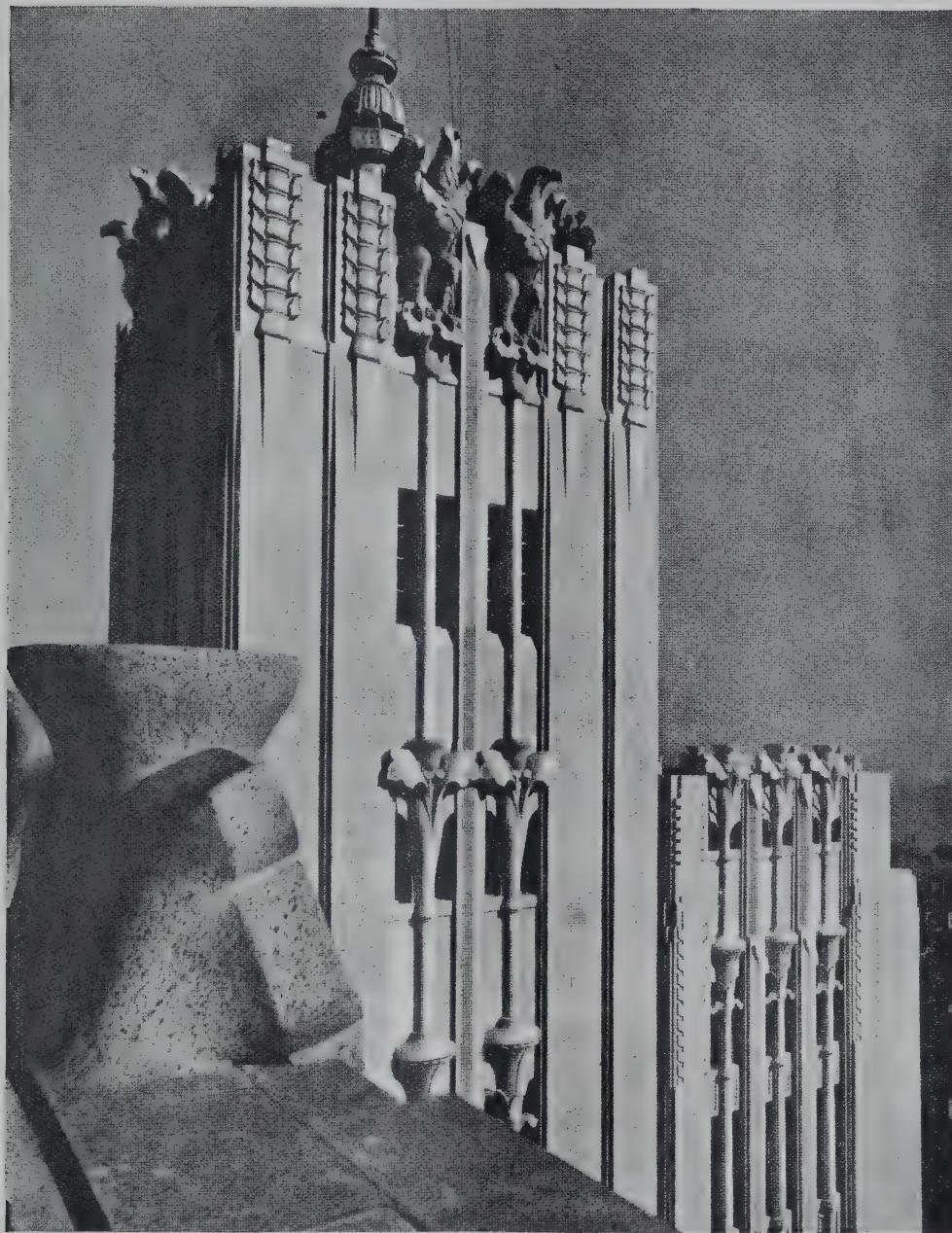
THE SCHOLAR'S VIEW

The heads of the various public schools have been invited to send parties of students to the

annual exhibition. Arrangements will be made to give short discourses on architecture during these visits. The lectures, which are being given at the Melbourne Gallery, have been so successful, that they are to be continued indefinitely. The result of this new arrangement will be watched with close interest. It would be interesting to get the impressions of the students regarding these visits. It is to be hoped that some enterprising headmaster will get his pupils to write an essay on the subject.

THE JOSELAND PRIZES

Mr. Howard Joseland, who has given an annual prize for sketching by architectural students, has decided not to continue it this year, owing to the poor response. On three occasions the only competitors were his own pupils, and last year there were no entries at all. This year the prize is for the best collection of measured drawings, particulars of the competition having already been given.



Detail of tower, Coast Division Building, Pacific Telephone and Telegraph Company, San Francisco, California.

(From the Pacific Coast Architect)



DESIGN FOR HOTEL AT COLLAROY.

A FEATURE of the proposed hotel at Collaroy designed by Messrs. Prevost, Synnot and Ruwald is the outdoor cafe at the entrance, which has been designed on Continental lines. It will combine the attractions of a first-class residential hotel, and a road house for motor traffic. This firm has also designed the reconstruction and additions to the original homestead at Mount Broughton, Sutton Forrest, now occupied by Dr. Norman Carter, M.L.C. While retaining the main features of the yard of the old station

house, it has been transformed into a Spanish courtyard, with rooms opening on cloisters, suitable to the climate. One of the features of the new building will be a large hall, which can be used for entertainments. In Frankston, Victoria, there is an exclusive golf club, where some of its members have houses which fringe the course. The same firm has designed such a residence for Mrs. S. M. Bruce, wife of the Prime Minister, which is being carried out in conjunction with Mr. Robert Hamilton, of Melbourne.

NEW LAMPS FOR OLD

The clear lamp is now as old fashioned as the automobile of yesterday.

In the lamp industry as in the automobile industry the product has been made a thing of beauty, softened in appearance, shielding from the eye its inner workings, and, as with the automobiles, given a stream line body. We all know that people are not interested in lamps as such. The lamp is only a means to an end, that end is lighting.

The new 25 watt. G.E. Edison lamp combines the principal advantages of the various other types now in existence, and includes recent developments not obtained in the other types.

The new 25 G.E. Edison lamp is intended primarily for residence service. It can readily replace four other 25 watt. lamps now in use,—the straight type, the mill type, and the two round lamps. The outstanding development is a bulb of pleasing design, frosted on the inside. The outside is perfectly smooth, making the lamp easy to clean. Due to the inside frosting the new lamp is far superior to the clear lamp in light diffusion, and yet it absorbs but little more light than does the clear lamp. They minimise glare, because each lamp is totally frosted, and the filament is permanently screened from the eyes. By the same token

they soften shadows. They are practically as efficient as clear lamps because they are frosted on the inside rather than on the outside. The inside frosting transmits practically all of the light.

These new lamps are easily cleaned because the outside surface is smooth and this smooth appearance gives a pearl-like lustr to the bulb itself. The new inside frosting also gives an added feature, much sought after and commented upon by interior decorators. The whole bulb itself, either lighted or unlighted, takes on a delicate tinge of the background on which it is placed, thus it tends to blend in harmony with the decorations.

The new lamp is very strong and much more rugged than previous lamps for comparable uses.

Finally, two points which are of prime importance to every home maker and lamp buyer, the fact that the lamp is new and up-to-date, and a modern achievement, and that all its advantages can be procured at a price actually less than the old style frosted lamp, and at a level which makes the buying of the clear lamp an uneconomical purchase.

The new wattages of the new G.E. Edison inside frosted lamp are 25, 40, 60, and 100 watt.

EDUCATING THE PUBLIC

By William Moore

IN every large city there is an inner circle, composed of people who have a genuine taste for the fine arts. In the outer circle, there is a certain number of enquiring minds, which might be drawn into the inner if they were met half way. That is to say: they would like to gain some knowledge of the basic principles of art, if it could be given in plain simple language.

Now the brochure issued by the Institute of Architects of New South Wales at its annual exhibitions, meets this requirement. The idea emanated from the late Mr. H. C. Day, who must be regarded as the pioneer of this movement. The average visitor to the exhibition learns something from the plans and drawings in the exhibition; but he probably gains a better idea of the meaning of architecture itself from the brochure which he takes home with him. And after being grounded in the general principles of the art, he is better prepared to look for the specific details he ignored when making his first visit to the exhibition. In future, when he moves about he will look at buildings with a fresh interest. His education, of course, has not advanced very far, but his ignorance is not so dark and profound as it was before; and when you meet him again as a client, he may be much more amenable to reason.

But why not extend the method of educating the public, beyond the brochure? Are there any insuperable difficulties in establishing an annual Architecture Day? In connection with this day, the editors of various papers might be invited to publish special articles on architecture, and talks on the subject might be broadcasted. One could not expect busy architects to deliver addresses in different parts of Sydney; but one meeting might be arranged in the city, at which speeches might be made by three or four members of the Institute. Thus, on one day of the year an endeavour might be made to attract some public interest in the oldest of the arts.

The President of the Institute of Architects of New South Wales (Acting-Professor Hook) has had many opportunities of realising the ignorance which exists regarding this subject. "Can he draw?" he asks, when parents seek his advice concerning their sons'—and daughters'—suitability for the architectural profession. "Oh no," is too often the reply, followed by an amazed "Do architects have to draw? I thought they just ruled everything!" "And then," says Professor Hook, "I have to explain that an architect is an artist, and that the lad who is naturally suited to the profession is one who has been fond of drawing from his childhood. Given that, some sound common-sense, and the love of making things that fortunately characterises most boys, and there is no reason why he should not make a fairly decent architect."

On the subject of educating the public, Professor Hook said that a book giving the outlines of the principles of architecture would be very helpful if it were introduced into the State schools. It would not only be useful to the youth who contemplated taking up architecture professionally, but would educate the future clients of the State. The suggestion regarding an Architecture Day, he thought, was worthy of consideration.

It is not necessary to stress the fact, that it is possible to create a public for all the arts. There is sufficient evidence of this in Sydney. Before the loan exhibition of Hilder's work, ten years ago, the interest in Australian art in Sydney was limited, whereas now, it is becoming general. Ten years ago the support for the higher class of drama was uncertain, now it is sure and definite. The same applies to music. Progress in these branches is due to the influence of certain leaders: Sydney Ure Smith in art, Gregan McMahon and Duncan McDougall in drama, and Verbrugghen in music. Architecture also has its leaders, but the exigencies of the manifold duties which beset them prevents the concentration necessary to further the interests of the profession as a whole.

COLOUR IN ARCHITECTURE

THE new Parish Church of "Our Lady of the Rosary," at Kensington, designed by Messrs Gilbert Hughes, and Molony, which is to be erected on the site adjoining the Sacred Heart Monastery and Convent, will be in keeping with those structures, the style adopted being the perpendicular or Collegiate Gothic. To obtain as much variation in colour as possible, specially selected sandstone bricks, made by Walker Benson, Ltd., are to be used for the facings, externally and internally, the latter being lighter in tone. The western front is flanked by two octagonal towers, one being used for the staircase to the organ gallery; the other, the Baptistry. Stone will be used in the main sanctuary arch, the western porch, and for five light tracery windows above; four similar windows being in the sanctuary. Particular attention has been paid to ventilation. The windows, which are composed of large steel casements and glazed leadlights, will all be capable of being opened, 20 being in the clearstory and 18 in the main body of the church. The joinery is of cedar throughout, the ceiling being of timber, with heavily carved bosses. The eight specially designed chandeliers, which will be used for electric light, will be supplied by Messrs. Lumley, Stevenson and Wilkinson, Ltd.; the steel casements by Dobson, Wormald, Ltd., Messrs. James

Muir and Sons, providing the specially selected Goulburn slates of all shades, used for the roof. The internal measurements of the church are: Height 30 feet, length 75 feet, width 57 feet. The building includes three chapels, baptistry, sanctuary, priest's sacristy, and two confessionals. The builders are Messrs. Beale Brothers.

The same firm (Messrs. Gilbert Hughes and Molony) has designed a residence for Mr. P. Puig at Cronulla, which stands on a block 165 feet deep and 207 feet wide. The house, courtyard and garage have a long front of 130 feet, with creamy pink washed walls, the tall bar divided windows, with their wide casements, having yellow green shutters. A sunken formal garden with an elliptical pool in the centre, lies in front of the cottage and the courtyard wall. The drive through from Trevelyan St. to Boronia St., running parallel with the sunken garden, has on its lower side a 12-foot wilderness of flowering shrubs, and a 10-foot covered walk 267 feet long, with opened barred gates to the two streets. The wall paved with old sandstocks of varied colours, is laid with a wide joint; and with its vine grown covering, provides a long straight line of colour and greenery, which from the verandah, forms the entire foreground in the view of the ocean and headlands beyond.

NOTICE TO ARCHITECTS

"Ripolin" has been proved so eminently satisfactory for the painting of Motor Cars, which are exposed to all kinds of weather, it should be practically everlasting when used for interior decoration. Here is a copy of a letter recently received by Messrs. Ripolin Ltd.:

Chesham Bois Place,
Chesham Bois,
BUCKS.

6th March, 1926.

Dear Sirs,—

Will you kindly let me have your card of shades of Ripolin Paint for Motor Car Bodies? I want a good grey colour with a warm touch in it.

You may remember that I had a Rolls painted with Ripolin in 1923 by the Wilton Carriage Company, at

Croydon, and you kindly took a good deal of trouble to see that the paint was what was required.

The Car has now gone 45,000 miles and is going again to the same carriage builders to have a repaint with your paint. It has been a very satisfactory job and there has not been even a suspicion of cracking off in any place. When this job comes along about April I will further communicate with you about the paint to be used.

What amount of paint is required for a saloon body including wings, and what price are your brushes?

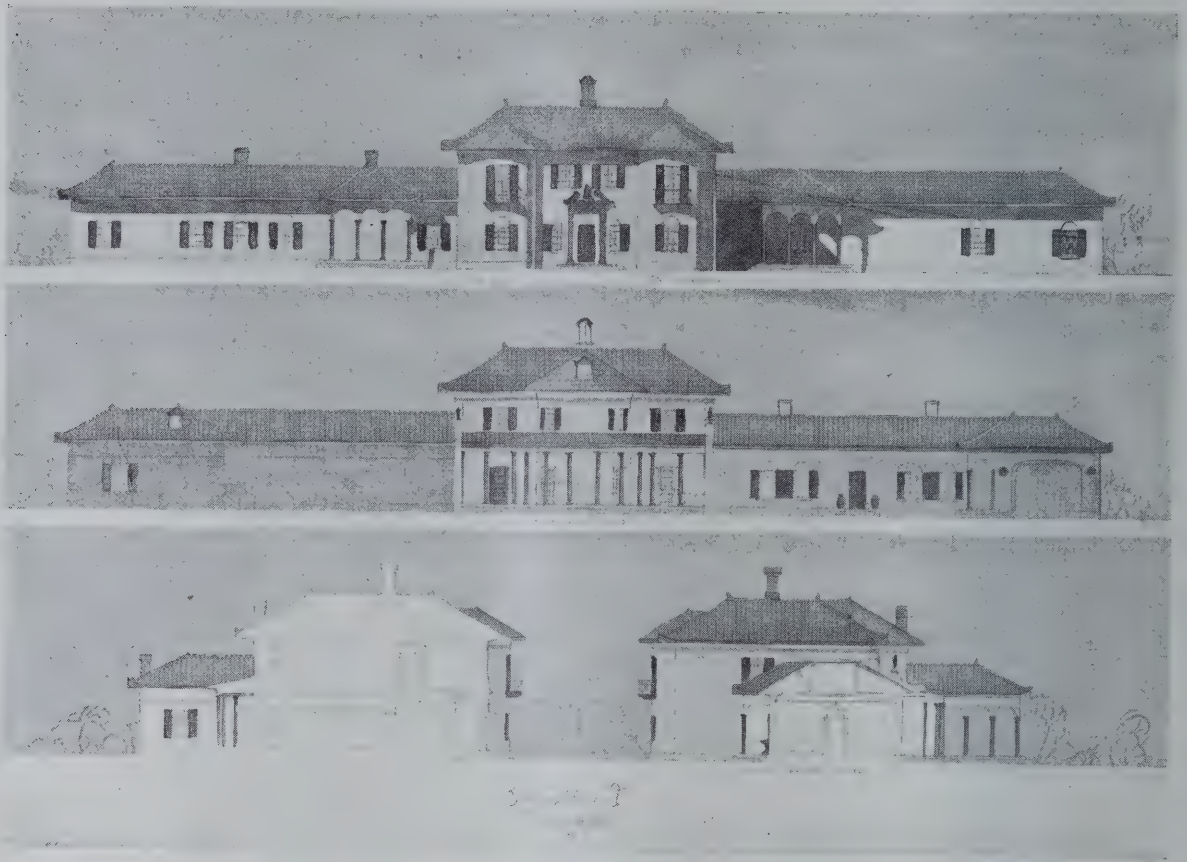
Yours faithfully,
(Signed) C.B.C.

Messrs. Ripolin Ltd.
3 Drury Lane,
LONDON, W.C.2.



NEW PARISH CHURCH.
KENSINGTON.

Gilbert Hughes & Molony, Architects.



Design for an Artist's House, by Raymond McGrath.

RAYMOND McGRATH

OF all the talented young men in Australia, few have gained such distinction in art and literature as Raymond McGrath, Bachelor of Arts and Bachelor of Architecture, who, at the age of twenty-three, has been awarded by the Faculty of Arts, the Wentworth Travelling Fellowship, one of the highest honours bestowed at the University.

Throughout his young career, he has been very fortunate in being taught by able and sympathetic instructors. At the Fort St., there were Messrs. George Mackaness and George Taylor, who encouraged students to make a serious study of literature and write original verse. During his Arts course at the University, he had the advantage of being under the guidance of Professors Holme and Le Gay Brereton; and at the School of Architecture, he worked under Professor Wilkinson, Professor Hook, John Moore and Norman Carter. He was instructed in painting by

Julian Ashton, and in modelling by Rayner Hoff. In bookbinding, he received hints from Wal Taylor, while the art of making woodcuts he learnt himself.

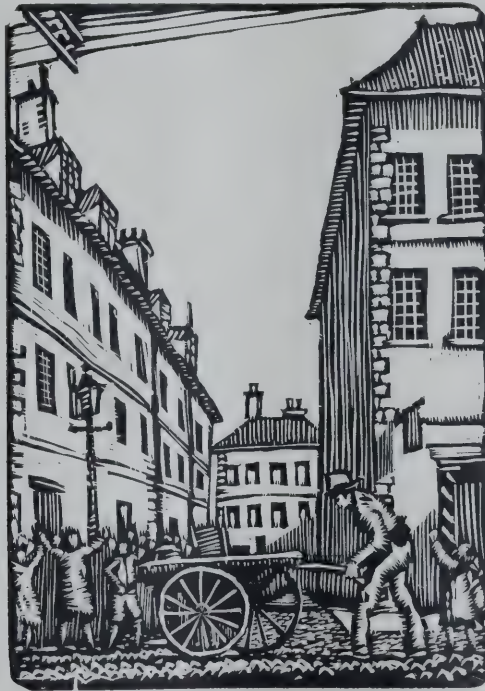
Many students begin to do original work after they have completed their studies, but McGrath has been producing all the time. Besides contributing prose sketches to *Hermes*; on four successive occasions, he has won the medal for English verse, also the Knyvelt Memorial Prize for a prose sketch, three times, and the Adrian Consett Stephen Prize for a short story, once. Two months ago, he acquired a printing press, and is now completing "Seven Songs of Meadow Lane," illustrated with his own woodcuts. "Tiptoe" and "Dreams of the Orient" are the titles of two other volumes.

His most important contribution to architecture is his treatise on Chinese architecture, which, from the literary, architectural and artistic point

of view, is regarded as the most perfect thing of the kind which has been produced at the University. Written in imitation of a Chinese manuscript, it is illustrated with coloured drawings, the binding and tooling being all his own work. In making the drawings, the young artist tried the experiment of using batic dyes, which he found much more effective than coloured inks. The School of Architecture possesses a number of his drawings, which indicate his singular fertility in invention. "You give him a hint," said Professor Hook, "and it blossoms out into something quite original." On the art side, his recent work has been mainly confined to woodcuts, some of which have been shown at exhibitions in Sydney.

He is now engaged on a set, the subjects of which are scenes from the plays of Shakespeare.

In the range of his work, Mr. McGrath is the nearest approach in Australia to William Morris. It was thought that after completing his course he might determine to settle in Europe, but he has no such intention. "Sydney has been very good to me," he remarked, "and I have no desire to settle anywhere else but here. The University has been a wonderfully encouraging place, everyone being ready to help you. It is too early to speak of future plans, but some day I would like to be associated with some movement here, to establish a centre for the development of the arts associated with the book, and the crafts and decorations connected with interiors.



THE ICE CREAM VENDOR.

Woodcut by Raymond McGrath.



TOWN CLUB, ELIZABETH STREET, SYDNEY.

Architectural Drawing by Raymond McGrath.



THE ORGAN GRINDER

Woodcut by Raymond McGrath.



THE METROPOLITAN BUILDING, SYDNEY.

METROPOLITAN BUILDING, SYDNEY.

THE METROPOLITAN BUILDING SYDNEY

THE new premises for the Metropolitan Assurance Company at the corner of Hunter and Bligh Sts., which was designed by Messrs. Burcham, Clamp and Finch, has a frontage of 64 feet to Hunter St. and 48 feet to Bligh St. The total height of the building, which contains twelve stories is 150 feet, the ground floor and basement being occupied by the company, the upper floors being let for offices.

The construction is of reinforced concrete throughout and is of the most modern fire resisting type. The lifts which are on the dual control system, can travel at the rate of 400 feet a minute. Like the staircases, they are enclosed and protected by fire doors. In addition, there is an enclosed fire escape stairway, communicating with the street, and a system of hydrants and extinguishers, to cope with any local outbreak of fire. The main stairway is specially treated with non-slip marble treads, wrought iron balustrading, and panelled tile dado, the corridors being done in a similar way. The insurance chamber on the ground floor is carried out in polished Queensland maple, with dadoes round the walls and columns. The specially constructed strong-rooms are in the basement, together with the agents' rooms and other compartments. The builders were Messrs. Howie, Moffat & Co., Ltd.

BOOKS AND MAGAZINES

COLOUR must never be overdone," writes John Gloag, in his volume on "Colour and Comfort." "If it is conveyed by fabrics and other extraneous furnishings," he adds, "then in a fairly large room it becomes so intimate a part of the whole scheme, than an effect of brightness is gained without the introduction of any emphatic colour feature. The author deals with his subject from many points of view, even

discussing the right tone of note paper. He is a lover of the subdued in all things. The rooms decorated by French artists, he says, are backgrounds for intensive elegance, an Oriental prodigality of gesture, ornate manners; settings meet for a restless flow of an artificial, hot-house kind of life even the simpler schemes he makes, lack the quality of repose that would commend them to British eyes.

ENGLISH ARCHITECTURE

In "Modern English Architecture," by Charles Marriott, there is an interesting review of the rarest buildings erected in England during the last fifty years. In the chapter on civic buildings, he singles out for praise the Town Hall, Deptford, designed by Messrs. Lanchester and Rickards. He gives the following description: "The oriel, supported by energetic tritons, over the entrance, recalls the stern gallery of a three-decker, and flanking it are statutes of Drake, Blake, Nelson, and a British admiral of to-day, each with his appropriate emblems. The coat of arms over the arched side entrance has, in one of its quarters, Peter the Great at work, and in another, a ship on the stocks. Under the pedi-

ment there is a representation in relief of a naval battle and the building is crowned by a rather impudent clock turret, with a weather vane in the form of an ancient ship.

Special mention is made of the new County Hall, London, designed by Mr. Ralph Knott, who was only twenty-nine when he won the competition for the design of this building; and there is a full description of the Cardiff Municipal Buildings, which are embellished by striking sculptural groups, one being by Paul Montford, who is now settled in Melbourne. The volume is well illustrated with a number of excellent reproductions of photographs of well-known buildings.

(Copies at Dymock's.)

BUILDERS' ESTIMATES

IN the Directly Useful (D.U.) Technical series of Publications from the press of Messrs. Chapman and Hall, Ltd., London, a book of special interest to the Architectural Profession has just been published, viz.:—"Builders' Estimates and Pricing Data: their preparation and analysis," by Henry A. Mackmin, F.I.S., M.R. San. I.

The above publication maintains the very high standard which the "D.U." series have established in technical works, and the information, problems and exercises will be found to be of a directly useful character, and at the same time, the book provides a lucid statement of the necessary scientific basis. As a book for constant reference, its usefulness has been enhanced by the addition of a copious index and the general arrangement is altogether admirable. The author has succeeded in compressing into a very small compass the benefit of over thirty years' practical experience as a Practicing Quantity Surveyor, each trade and special branch of work having also been read and criticised by experts. Such subjects as Demolition of Buildings, Reinforced Concrete and its Shuttering, Continental Tiles, White

Portland Cement Work, Breeze and Plaster, Partition Slabs, Zinc Paints, Iron Drainage and Jointing of same, and temporary Timber Work and Scaffolding, are believed to have been dealt with for the first time, thus making the contents up-to-date.

Variations in practice there must necessarily be, the book under review dealing with British practice; still, there is no doubt of the great value to Australian Architects, as well as craftsmen, tradesmen and students of the information set out in this book. It is singularly appropriate that "Builders' Estimates and Pricing Data" should make its appearance at this juncture when the Quantity System, as practiced in New South Wales is engaging the attention of the Architectural Profession, as well as the Master Builders' Association. We can heartily recommend the above publication and congratulate the author and publishers on a splendid production.

"Builders' Estimates and Pricing Data: their preparation and analysis," by Henry A. Mackmin, F.S.I., M.R. San I., London. *Chapman & Hall, Ltd., 1926. 9/6 net.*

INSTITUTE OF ARCHITECTS OF N.S.W. ORDINARY GENERAL MEETING

HELD MAY, 4th, 1926

The President, Mr. A. S. Hook, A.R.C.A. (London) occupied the chair. Apologies were received from Sir Charles Rosenthal, Mr. G. N. Hughes and Mr. S. G. Thorp, also from Mr. Speer, President of the Master Builders' Association, who had been invited to be present. There were about 50 members present.

The Minutes of the previous Meeting (6th April) were confirmed and signed.

The President spoke of the death of an old and faithful member of the Institute, Mr. A. L. McCredie, and the members stood in silence for a moment to show their respect.

The President read Minute of the Council Meeting, held on 9th March, as follows:

SCALE OF CHARGES.

Proposed by Mr. Waterhouse, seconded by Sir Charles Rosenthal:

"That the minimum charge for all Factory
"Work be 5 p.c., and that an additional
"charge be made for any extra intricate work
"that is needed." Carried.

Proposed by Mr. J. A. Kerr, seconded by Col. Hurst:

"That this shall apply to Factory Buildings,
"or buildings of similar type used for com-
"mercial purposes." Carried.

It was proposed by Col. Hurst and seconded by Mr. E. A. Scott, that discussion on this matter be deferred until the General Meeting to be held in July. Carried.

The President drew attention to the Annual Dinner to be held on 8th June next, at which His Excellency the Governor-General will be the guest of honour, and invited each member to make a point of attending.

The President said that he had in hand the balance sheet of the Annual Cricket Match, and invited all members interested to send in contributions towards defraying the cost of this to the Secretary.

The Report of the Board of Architects was presented and taken as read—this to be printed in the May number of "Architecture," when all members will be able to obtain details of the very good work being done by the Board.

The President then addressed the meeting on the subject of the evening: "Proposal for a Small House Service Bureau for N.S.W." He said in part:

"You will remember that some 3 months ago I casually mentioned in my few remarks after being placed in this chair; that I had a desire to do something in the way of improving small homes, and I spoke of it then as one of the most difficult problems confronting any community.

"I have been thinking of this problem for some years. I know myself, that getting your home is a big undertaking when you have not very much to get it with, and I have always felt very sympathetically disposed towards men with very small means. At the time I first mentioned this subject I had not considered it at very great length, and I was not at all prepared for the interest that those few remarks aroused; I was inundated next day by people anxious for more details, and by the press men, and in the three months that have elapsed I have been surprised at the number of people who have shown the deepest possible interest. Some of our leading practitioners have helped me tremendously in getting needed details of the scheme, and they have all received the idea most enthusiastically.

"As I said, the press men were among the first to awake to the possibilities of the plan. The Minister for Education was most interested, and gave a whole afternoon to discuss the matter. The Minister for Justice, in much the same way, gave me his time and sympathetic attention.

We invited representatives of the Commonwealth Bank and the State Savings Bank to meet representatives of the Board of Architects and the Institute to discuss the proposition and see what could be done about it. Both these gentlemen were deeply interested in the idea, and showed themselves very ready to consider the matter when a concrete proposal can be put before them. Indeed, in view of Mr. Bruce's scheme for advancing 20 million pounds for the building of homes. I think such a plan as is now being evolved may prove of particular interest to the Commonwealth Bank.

"The Master Builders' Assn. are assisting us in every way, and are most interested in the scheme. The Country Saw Millers' Assn. wrote and said that they would do anything in their power to

lend us a hand, and many other offers of assistance have been received. All these things go to show that the time is now ripe to do something of this sort, and it is evident that there are a lot of people outside the Institute who are interested and anxious to see something done along these lines.

"Mr. Mutch was very surprised that the Institute should consider doing such a thing simply and solely for the public weal.

"Now, I ask, when the 20 million pounds proposed to be advanced by the Commonwealth Government for the building of homes—what sort of homes are going to be built? Are we going to have more of the same old thing, or are we going to produce something better? Something that will raise the tone of our building altogether?

"Now all sorts of schemes have been tried out in connection with housing, as all of you know, so I am not going over them in detail. Do any of you members know of a successful example of a housing scheme, because I do not? There is a housing scheme in Daceyville, and another in Stockton, but I have not the slightest desire to live in a place like either of these, nor do I think anyone else has. There have been others, but they have never been successful. I do not think any scheme can be successful where the plans are turned out in great numbers by people who have no interest in them—simply draw a salary and never see, nor ever care to see the houses for which they draw the plans. I know that in Stockton there are about two types of houses—those on the corner blocks and those in the street rows. "There is another thing that goes against a housing scheme, and it is this: I do not think that people like living in a housing scheme. People all want individual blocks, and rightly so. . . . We none of us want the everlasting sameness. I sincerely hope that the Federal Government will not launch out on anything of that sort, and I also hope the State Government, which is now thinking about something of the same kind, will avoid adding more streets of the sort of homes that we now see around us. The War Service Homes build both on isolated blocks of land and in settlements.

"Then we have the type of scheme such as the Workers' Dwellings, or Workers' Homes in Queensland. They are something like the War Service Homes people, they build both settlements and isolated cottages, but everything is managed on a purely departmental basis—you must have your place designed by them. As far as the Act is concerned, the provision is that they *must*

supply the plans. In connection with the building, they do all the building—they do the whole business.

"Now, finally, we come to the type of thing we have here—the Advances for Homes Department in the Government Savings Bank. The Bank simply provides the money, and does little beyond that, it does not interfere with the provision of plans. They keep a few plans, but they do not insist, nor even push them. Its business is purely the provision of money, and the client is treated much the same as if he were an ordinary client, and he can make arrangements with his architect or his builder in exactly the same way as if he were providing the money himself.

"Now, so far as I know, I think this scheme is the best for the building of homes. The Bank's valuer goes round and has a look at the job during the building, but there is nothing unusual in that. For some 14 years the Bank has been carrying on this scheme, and their bad debts are negligible. It seems to me that if the Government will simply provide more fuel for the machine that this will be an entirely satisfactory solution so far as the financial end of it is concerned. I think that the Commonwealth Government could do no better than work with the Commonwealth Bank in the same way.

"I think when it comes to the provision of plans in such a scheme as is now at work that the Architects of the State are the people who can supply the plans. I think that we, as Architects, can do a tremendous lot to help with our end of the concern, and I know that the Master Builders will do a lot to help with theirs. I believe that we can do a great deal, and from the interest that I see has already been aroused, I think we really want to do our share.

"I have been looking into the way in which these things are managed in other parts of the world, and there is one scheme that I want to bring before your notice. Speaking of the man who has £1000 to spend on his home—I find that the average cost of the houses round about this figure erected last year (and there were some 11000 of them) was only £640—that shows you that the average man does not spend £1000 on his house, and to the man who spends £640 on his home the sum of £36 architect's fees is a big problem, and in most cases, it simply means he does not find it, but that the home is built without an architect.

"Now looked at from our end of the business, the problem is a very big one, when you are restricted to price, all things taken together with the fact

that it takes just as long going to and from such buildings for supervision, etc., as for the larger jobs, it means that the small homes do not pay; yet these people who are not so well off as many others, are just as much entitled to our good work as are those who are wealthy; but few architects care to undertake the erection of the small homes.

"Now, seeking round for ideas over some considerable period, I have been very much interested in an attempt to solve this thing by a number of architects in Minnesota. They called themselves the 'Minnesota Architects' Small Homes Service Bureau.' These people prepared plans, and published a booklet, and it seems it was a great success—almost from the inception. Apparently they found the same sort of interest as I think we are likely to experience here. In this case, an outside Association offered to finance the provision of 100 stock plans, and those plans formed the first stock in trade. I have here some books showing examples of them which will be available presently for any of you who wish to have a look at them. Also in the Public Library there is a volume of plans which were prepared from those of which I speak. Now, as soon as they found that the Press was very interested, and that the papers would like to publish the plans, an arrangement was made by which the papers *paid for* the privilege of publishing such plans. Just before Christmas of last year, there were 74 papers actually paying for this privilege of publishing one plan per week.

"In 1924 these people had made from the sale of plans £7500, and from all sources they had collected £14000 (for supervising, etc.) This seems to me to be a good turn-over. Some £200 of this represents profit, but they each had a share of the proceeds. I do not know just what they expected, but as they each had a share in the proceeds, I suppose this was clear over and above that.

"This Minnesota scheme having got well under way, they went ahead and organised it all over the States, but although there is no doubt that it was satisfactory in the State of Minnesota, it does not appear to have been always a success in the other States. There are six or eight States running a scheme like the one described, but I think there are good reasons for the lack of interest in some of the other States, I do not believe, however, that the conditions which affect them would affect us. I think the conditions here are quite good.

"Although this plan was spoken of as coming from the Institute of Architects of the principal States, it was in reality run by 15 firms quite alone, and I think this is one of the reasons why

it has not been as popular as it might have been. You know America has plan shops all over the place, and these people were facing the opposition of well established plan-selling businesses. In our own case the position is much more favourable for running something of this sort. As yet nothing has been provided for the men who have only a little money to put up, but I think the Local Government Authorities are sufficiently interested to, of their own volition, try to do their utmost to send people along to us when we have anything to give them. It can be done, and I feel that we shall get all the help we need.

"I feel that the Institute of Architects is the right authority to form this Bureau, and that we should then invite each and every architect in the State to send in to us anything good in the way of small house plans, say, for a limited amount to be arranged. The Bureau would have its Plan Committee comprised of leading domestic experts.

They would review the plans just as in a public competition. The plans would be paid for at the rates as if the job had gone through in the ordinary way at the established Institute scale of charges. By this means the Bureau would get, say, 50 plans, or perhaps 100 for a stock, the number would depend on what prospects there are for selling them. Any architect would be quite at liberty to send in five, or six, or ten, just as he prepares them. I am sure that quite a lot of people who are struggling to get their homes would be only too glad to avail themselves of such an opportunity as such a Bureau as outlined would provide.

"Well, having obtained 50 or 100 plans, the Bureau would proceed to sell them. The idea is to sell them complete with three copies, specification as required, and bill of quantities. Now, if you pay £60 for the plan, you will have to sell enough at, say, three guineas to get your money back. The price will of course have to be arranged so as to get your money back and to cover all overhead expenses for the running of the scheme. Besides this, each job will bring in a small amount, as, for instance, 1/- each for the Conditions of Contract, etc. I hope such plans as I describe will prove sufficiently attractive to jerry builders, and, in fact, all builders in want of plans, that they will be bought freely, not only by the men who are building the one and only home of their lifetime, but also by those who go in for speculative building of small homes. If this is done, I think it will make a great difference to the streets of houses in our suburbs in a very short time. There is no need to fear that there will be too much repetition. Get that out of your minds altogether, there would be no more of it under this system than

has been going on for many years, and is going on at the present time. I do not think there is the slightest need to worry on that point. The houses will be of thoroughly good types, and if there are a few of the same designs scattered about in the different suburbs, this will be an advantage rather than a drawback. Look at many of our suburban streets to-day—with rows and rows and streets and streets of the same kind of houses—and poor types at that.

"Now, that really is the whole system. There are details which will have to be arranged by a Committee if the scheme is taken up and prepared for working conditions.

"The main idea in working out the system will be to keep in mind always the necessity for standardization wherever possible, of fittings, etc., with the object of reducing cost. You must remember that you are building a Ford and not a Rolls Royce. The proposition needs to be looked at from a business standpoint, and when I say "standardization" I mean standardization of certain parts, such as windows, doors, etc. The R.I.B.A. got to work with regard to the standardization of metal windows some little while back with most excellent results from every point of view—the prices were reduced, and the windows were turned out, complete with all fittings, thus saving an infinite amount of unnecessary work and worry in connection with calculations. In Australia to-day, we can purchase metal windows complete with all fittings ready to put in—this is what I mean when I talk of standardization. The same applies, of course, to the joinery and many other materials.

"With regard to the Local Government Authorities, the Councils like to see the poor man get the fairest deal possible, and they have to put up with a great amount of trouble in passing the plans as now submitted to them. I feel sure that we will receive support from them in our endeavour to see that the poor man gets a decent plan when he goes to build his own home, and if they will take the stand that they will not accept poor plans any longer, and if we have our Bureau ready to supply such plans as they will be glad to accept—why the whole problem is settled. The man who cannot afford to pay big fees comes to the Plan Bureau and gets all he needs for a few guineas. Now if we go along offering something like this, if we show that we are anxious to serve and not to make, there can be no doubt at all that we will get every consideration and help.

"There is possibly the objection that this would strike a blow at the small struggling architect, to whom the small cottage is of great value—I do

not think there are very many who will suffer. There is practically nothing done by architects in this field, as far as I can see; but this would be the only valid objection that could be raised by men in our profession.

"With regard to finance—we are not going to do it on the lines followed in America. I really think that we can convince the Government Savings Bank or anyone else who is interested of the soundness of the scheme, and that quite a number of people would be ready to lend us the money, also I think there are a lot of us who would be pleased to send in plans and wait until the sales begin to be made for our money. I do not think we should try anything that is absolutely akin to the Minnesota scheme. I think the basis of the whole thing is the competition offered to the whole of the profession, by which means you will have the best efforts, and a steady flow of plans coming in.

"Now, this is all I have to tell you at the present juncture. I think it is worth trying, and I want to see you try it. I think we should make some definite attempt to be of use to the people of this State, and I think the greatest use would be to help the man who is down at the bottom."

Mr. Richards (Master Builders' Assn.) spoke warmly of his appreciation of the possibilities of the scheme outlined by the President, and expressed hope that it might be definitely launched in the near future. He said that one of the surest guards against bolshevism was personal ownership of homes.

Mr. Godsell (President of Board of Architects) said he felt he could give such a scheme as outlined his full support. He thought it entirely practicable. He believed the financial side could be arranged without any great difficulty. He was sure that such plans would be a boon, not only to the man building his own small home, but to the jerry builders, and others who would be glad to get good plans at small cost. He thought much detail would have to be gone into in the matter of alterations and adaptations of plans, and that a strong Committee would be needed to finalise the scheme and set it going.

Mr. E. A. Scott said: "Mr. President, you see before you a converted person," and went on to say that he had not thought from what he had known of the scheme previously that it was at all a workable idea, but that after the President's explanation, he felt sure that it had splendid possibilities, and he now believed that it was entirely practicable. He believed that all Architects in N.S.W. would be glad to help forward such a plan, and that he personally would do anything in his power to help.

Mr. Louat said that he had appreciated very much the outlining of what he considered a thoroughly practicable scheme. He thought there was no doubt at all that standardization is a coming thing and would be of much assistance in such a scheme as this. He agreed with what Mr. Richards had said with regard to ownership of homes being a safeguard against communists—he had never known a communist who owned a house yet.

Mr. Richardson said it gave him great pleasure to move a vote of thanks to the President for his very able address. He felt it was really necessary to have the Local Government Act amended to make it necessary that the small houses should be designed by responsible architects before this scheme could be really effective and ensure a sufficient number of clients. He felt sure that the attitude of the Banks was promising for the future developments and that this scheme would inevitably be launched.

Mr. Hill said he had great pleasure in seconding the vote of thanks proposed by Mr. Richardson, and at the same time expressed his deep interest in the scheme.

Col. Hurst said he would like to say a few words regarding the Local Government aspect of this scheme, and speaking from the point of view of an alderman, he could assure the President and Members that such a scheme would solve many of the difficulties that the Councils had to contend with. Their sympathy is with the poor man who is endeavouring to get his home, but who is not in a position to pay architects' fees. If this scheme is brought to fruition, the poor man will be able to have architects' plans equal to those of the man who is better off. He felt sure that the Institute would have the support of many of the Councils. There was a suggestion which he would like to make—that of having the name of the architect moulded on a brick or plate inserted in the building. This would simplify matters in regard to inspection, etc., and would be a stamp of

quality. He would like to see some such arrangement included in the scheme. Another thing he wished to stress was the importance of the conditions being attached to the sets of drawings. He felt that it was a very vital thing that full protection should be given to the small Home Builders from the inroads of unscrupulous men and those conditions were going to help the matter considerably.

He then formally moved "that this meeting affirm the principle of a Small Homes Service Bureau as outlined by the President (Mr. Hook), and that it be an instruction from this meeting to the Council of the Institute that they prepare the scheme in detail and submit same to either a Special General or Regular Monthly Meeting, but not later than the Regular Meeting of July next." As there was already a motion before the meeting, Mr. Richardson consented to include the motion in his, with permission of the seconder. The motion, on being put to the meeting, was carried unanimously with acclamation.

Mrs. Taylor said that she would like to see the stamp of the Water and Sewerage Board on the Plans, as this would facilitate matters very much. Mr. Buchanan congratulated the President on what seemed to him to be a very sane and logical proposition. He thought it would add prestige to the Architects in many ways. So far he noticed nothing had been said with regard to supervision. This was a very important matter and must be gone into in detail.

The President said that for some time a Committee had been working on this scheme, and that really a great deal of work had been done, and many details mentioned by different speakers had already been considered. He wished especially to mention the assistance he had received from Col. Hurst and Mr. Hill. He had much pleasure in declaring the motion, including instructions, to Council. Carried unanimously.

BOARD OF ARCHITECTS OF N. S. W. REPORT FOR INSTITUTE OF ARCHITECTS

MEETINGS: During the five months ended 31st March, 8 Board Meetings and 4 Committee Meetings were held.

DEPUTY MEMBER: The Governor appointed Mr. J. Nangle, Superintendent of Technical Education, as Deputy for Professor Wilkinson during the latter's absence from the State.

RETIREMENT OF SIR CHARLES ROSENTHAL: As he would vacate the office of President of the Institute Sir Charles Rosenthal retired as a Member of the Board. Regret was expressed by the President at the loss of his services and he was thanked for the work he had done as a member of the Board.

DEATH OF QUEEN ALEXANDRIA: A message of condolence was sent to their Most Gracious Majesties the King and Queen and to the Royal Family on the death of Queen Alexandria.

R.I.B.A. President: The congratulations of the Board were conveyed to E. Guy Dawber on his election as President of the R.I.B.A.

REGISTRATIONS: The following 11 registrations have been approved:—

Walter E. Clark
Ernest Coleman
Thomas E. Cooper
Jean Alison Cunningham
William Rae Laurie
Charles Mackey
John Moir
Finlay E. Munro
Hubert Alfred Rudder
Maurice Buxton Ryan
Samuel Parmenas Woodford

DECLINED: Four applications were declined.

WITHDRAWAL FROM REGISTER: The request of Mr. James Orwin, transferred to Brisbane, to withdraw from the Register, was acceded to.

DECEASED ARCHITECT—W. A. ROSTRON: The sympathy of the Board was conveyed to his widow and family.

RESTORATION TO REGISTER: The names of W. T. BROOME and JOHN KIRKPATRICK were restored to the Register.

REGISTER AND ROLL: As at the 31st December, 1925.

The President advanced the Roll Fees of five Architects who were ill or in financial difficulties. The following were removed from the Register and omitted from the Roll which was gazetted on 29th January, 1926:—

(a) Through non-payment of annual Roll Fees.

Beresford, F. H.
Broome, W. T.
Herbert, L. F.
Cody, V. de P.
Graf, F. G.

(b) Deceased architects:

Barlow, J.
Day, H. C.

Fairfax, C. F.
Goodwin, W. M.
Hennessy, J. F.
Justelius, J. E.
Kirkpatrick, J.
Lake, J. W. H.
Lupton, A. S.
Moorhouse, F.
Williams, Edwin

(c) Architects who withdraw from the Register:

Carter, C. W. J.
Orwin, James
Thompson, G. R.
Withey, A. E.

The following new architects were added:

Aisbett, J. C.
Clark, W. E.
Cooper, T. E.
Dowling, V. L.
Hicks, J.
Howard, C. V.
Kronidoff, A.
Laurie, W. R.
Mackey, N. C.
Moir, N. J.
Munro, F. E.
Rudd, L. R.
Ryan, M. B.
Sambrook, A. N. H.
Torode, W. N.
Williams, L. R.

The following were restored to the Register and added to the Roll:

Angus, J. F.
Potter, A. G.

Names since restored to the Register.

ANNUAL REPORT OF THE BOARD: It was decided to reprint the First Report of the Board being an extract from the Annual Report of the Minister for Education for the year 1924, together with the two financial statements to the 30th June, 1924. This will be forwarded with the Roll of Architects for 1926 containing the names of 658 architects and a covering circular letter to each architect.

DUPLICATE REGISTRATION CERTIFICATES: The Board was not prepared to accede to the request of two architects that duplicate registration certificates be issued to them.

ILLEGAL USE OF WORD "ARCHITECT": Suitable action has been taken in the case of 6 persons and a Sydney newspaper in connection with the illegal use of the word "Architect".

ADVERTISING: An architect who was cited before the Board was directed to cease advertising in the public press.

WAVERLEY MUNICIPAL COUNCIL: The Board communicated with the Town Clerk, Waverley, with regard to his Council's action in addressing firms of builders asking them whether they would be prepared to submit a design or designs with costs thereof for the re-construction of the Bondi Bath premises

SYDNEY OFFICIAL TELEPHONE DIRECTORY: The Board agreed to the inclusion of Architects under the Professions and Trades Section in small or block type, but considered it unprofessional for architects to have a card announcement in this Directory.

CENTRAL ASSOCIATION OF ARCHITECTS OF ARGENTINE REPUBLIC: In reply to a communication from the Argentine Minister, received through the Hon. L. S. Amery, Dominions Office, London, the name of the President was submitted as Overseas Correspondent of the Central Association of Architects of the Argentine Republic for the purpose of establishing an interchange of ideas upon Architecture.

RECIPROCITY: Further attention has been given to the question of reciprocal arrangements between the Registration Boards of New South Wales and Victoria.

GOVERNMENT SAVINGS BANK OF N.S.W.: The Commissioners, who were approached in connection with loans to clients for the erection of homes, have informed the Board that they would prefer plans drawn by architects.

ENDOWMENT FUND: A further deposit has been made of fees of several members of the Board to this Fund.

A SPECIAL GRANT was made to Mr. Meredith S. Smith, a student of outstanding merit, of the Sydney Technical College, to assist him in proceeding abroad in connection with his architectural studies. He left Sydney on 27th of January last.

TRAVELLING SCHOLARS: Reports have been received through Major H. C. Corlette on the work of Mr. W. H. Morris who has been allowed to extend his time abroad for a further year.

Eight photographs by W. R. Laurie have been selected for reproduction. He is to submit some work for the Institute's Exhibition.

AUSTRALIAN MEDALLION: Seven designs were received, 5 drawings and 2 plaster models, for the Australian Medallion. The model by Mr. Rayner Hoff was accepted and the drawing by Bertram C. Duckworth was highly commended. The accepted design carries a premium of £21 and is the property of the Board. Arrangements have been made to have the Medallion struck.

EXAMINATION TEXT BOOKS: A list of text books for the assistance of students and candidates, particularly for the use of country examinees, for the Board's examination has been prepared.

SECOND PRESCRIBED EXAMINATION: This took place at the Sydney Technical College. The written examination extended over six days, 15th to 20th March, and the oral examination was held in the first three evenings of the following week.

The members of the Board were the examiners:

Design and History: Messrs. Godsell, Waterhouse, and Hadley.

Building Construction, and Building Materials: Messrs. Hook and Nangle.

Hygiene and Practice: Messrs. Budden and Weston. There were 15 candidates, including two from the country.

The 9 successful candidates were:—

Allsopp, J. E.
Buckland, L. J.
Dwyer, A. H.
Grout, R. E.
Lucas, S. W.
Quinlan, H. N.
Smellie, A. A.
Smith, V. B.
Valder, W.

Candidate Reginald Edwin Grout, who sat in every subject, was awarded a Pass with Honours.

Exclusive of Design and Practice exemptions were granted to candidates who had passed other examinations recognised by the Board.

Seven candidates took 2 subjects; 4 were examined in 3 subjects; 1 in 4 subjects; 1 in 5 subjects; and 2 in 6 subjects.

Ten of the 15 candidates in Design passed in that subject. One of the 3 candidates in Building Construction; 3 of the 4 candidates in Building Materials; 2 of the 4 candidates in History; 3 of the 7 in Hygiene; and 9 of the 14 examinees in Practice passed.

SCHOOL OF ARCHITECTURE, UNIVERSITY OF SYDNEY: At the request of the Minister, the Hon. T. D. Mutch, the Board appointed a Special Committee, consisting of Messrs. Godsell, Waterhouse, and Budden, to visit the School of Architecture and, after conferring with the Vice Chancellor, submit a report to him. He was informed that the existing provisions for the education and training of the students were inadequate, and it was urged that in view of the absence of Professor Wilkinson a full-time lecturer should be appointed. State funds not being available for this financial year the Board offered the Minister the sum required to enable the University Senate to make an appointment (£116/13/4). The Minister versity that he would provide on the Estimates of his accepted this and informed the Board and the University that he would provide on the Estimates of his Department the sum of £350 from the beginning of the next financial year, and pledged the Government to find at least this amount annually pending the consideration of further proposals for permanently increasing the endowment of the School when the Board had had a further opportunity of investigating the position on the return of Professor Wilkinson.

On the 1st February the Senate decided to create the position of Lecturer in Architectural Practice and Construction and appointed Mr. A. S. Hook to this position. On the 1st March the Senate appointed Mr. Hook as Acting Professor of Architecture as well as Acting Dean of the Faculty for the period of Lent Term, 1926.

The keen appreciation of the University was conveyed to the President of the Board for the assistance rendered to the School, and it was intimated that the re-organisation of the Architectural Curriculum would receive attention soon after Professor Wilkinson's return. The Professor, who had been informed of the steps taken by the Board, conveyed his personal thanks and that of the University for the increase in the grant to the School.



LIVING ROOM, "PERULIA," WAHROONGA,
SYDNEY.

*Photographed by Casneaux when the house was in
the possession of its designer, Mr Hardy Wilson.*



Bas Relief by Rayner Hoff.

ARCHITECTURE

AN AUSTRALIAN MONTHLY JOURNAL

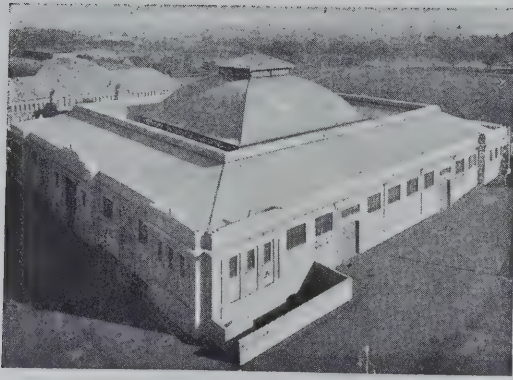
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PRICE ONE SHILLING



WAR MEMORIAL, NEWINGTON COLLEGE, SYDNEY

THE ANONYMITY OF ARCHITECTURE



*The "Hordern" Pavilion,
Royal Agricultural Show-
ground, Sydney.*

*Exterior ironwork and all sup-
porting steelwork inside protect-
ed by two coats of "Ferrodor"
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Pavilion, which latter was painted in March 1924 by
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Maisey; Builders, Messrs. John Grant and Sons.

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June, 1926

THE ANONYMITY OF ARCHITECTURE

By William Moore

ALTHOUGH the signing of buildings by architects is a question which has been discussed before, there is one phase of this subject which, I think, has not been seriously considered. While the names of some of the early designers of buildings which have a lasting dignity are familiar to architects, the public knows nothing of them. It would be rather terrible if another generation should pass away without any effort being made to save their names from drifting into still greater obscurity. Time is the supreme critic; and after a long lapse of years there cannot be much difference of opinion regarding the finest examples of the architecture of the past.

Now, what can be done? I beg to submit a plan to the Institute which would entail little trouble and slight expense. It might give consideration as to what buildings were worthy of recognition and the form the mark of authorship should take. It would have to bear the cost of a design for a suitable relief, copies of which might be sent to the owners and controllers of the buildings selected, asking them to stand the expense of having the relief modelled and cast in bronze.

"This Building was designed by _____,
Born _____ Died _____,"

would be sufficient for the inscription; but in the arrangement of the composition there would be room for a distinctive design on sculptural lines. The sum required for a uniform relief could be ascertained, and one might express the hope that those in charge of a noble building would not be so ignoble as to demur at the amount. It is not likely that the recommendations of the Institute would always be accepted, but a start would be made; and the work of a few, at least, of the early architects would be recognised

at last. If these buildings were crowned by the Institute it might give them much greater protection. Burdekin House has been marked for the hand of the destroyer, and even the removal of St. James' Church has been glibly suggested. The names of three architects will readily occur to those interested in this scheme. They are:

Francis Howard Greenway,
Edmund T. Blacket,
Horbury Hunt.

Unfortunately there are few examples of the work of the first-named. How he was generously encouraged by Governor Macquarie and cruelly snubbed by Commissioner John Thomas Bigge is related in Hardy Wilson's account of the life of this architect, in *The Macquarie Book* (Art in Australia Ltd., 1921). But his designs for St. James' Church, St. Matthew's Church, Windsor, and the Macquarie Barracks are sufficient to place him amongst the immortals. One does not object to the name of Governor Macquarie appearing on these buildings. He was an able administrator and our first patron of the Arts. He did so much that we can forgive him for acting as his own publicity agent. But what can be said for the apathy which allows the name of Greenway, the first Australian architect, to remain unhonoured and almost unknown?

There is a much wider selection to be made in connection with the buildings designed by Edmund T. Blacket. With such structures as The Main Building and the Great Hall at the University, St. Andrew's Cathedral, St. Paul's College, St. Mark's, Darling Point; St. Stephen's, Newtown, St. John's Darlinghurst; and St. John's at the Glebe, there are quite enough examples to choose from. The extent of the output of Hor-

bury Hunt is not so definitely known. One of his houses may be seen in the Gunangulla Road, near Scots College; another stands near the Methodist Church in the old Liverpool Road, Ashfield, while the third, a large mansion, which is now used as a hospital, is outside Armidale.

Other buildings suggested by different architects were: St. Mary's Cathedral, designed by W. W. Waddell; the General Post Office, by James Barnett; the Mutual Insurance Building, by John Kirkpatrick; some of the houses on the North Shore designed by Jefferson Jackson; the Anglican Church at Camden, supposed to be designed in London by Sir George Gilbert Scott; and Hilly's Carrara House, Vacluse. The names of some of the designers of the best examples of the past appear to be absolutely forgotten. The old Government House, Parramatta, St. John's, Parramatta, Camden House, the Subiaco Convent, and the old Admiralty House were also suggested, but I could learn nothing regarding their authorship.

I have discussed the subject with a well-known architect who considers that not only the best of the early work should be labelled, but all the modern. People would then know who did the bad. In America they not only give the name of the firm of architects responsible for the building, but the names of the chief draughtsmen who designed certain parts. He thought it would be useful to both citizens and visitors to know who had designed a building which attracted their attention. There was no reason why a building should not be signed like an example in painting. I have written this article only by way of suggestion. The names of our early painters have been preserved by the signature on their canvases, while those of some of our early architects have passed into oblivion. The followers of any art are rarely well paid, but they do look for some recognition for work finely conceived and well carried out. Where it can be done at this late hour, it should be done.

THE PROPOSED SMALL HOUSE PLAN SERVICE BUREAU

An Appreciation by Edith Constance Horrocks, M.I.A.

OUR President put before us at the May meeting of the Institute a "Proposal for a Small House Plan Service Bureau for N.S.W."

A scheme so well thought out, so workable, and so fraught with real and lasting good that it must appeal to all who love this country.

For many years now we have felt that the existing state of affairs in regard to the planning and building of the small house was a disgrace to this State.

We all felt that; but the way out has been the problem—a satisfactory way out.

To condemn is always so easy, but to construct takes time, and thought, and interest at heart.

And in the meantime there sprang up around us everywhere the ugly, the monotonous, the uninteresting, the jerry built; crowding our suburbs, spoiling our city and our country towns, cheapening our seaside resorts, and making whole neighbourhoods dull and uninteresting, if not hideously ugly. A more or less lasting witness to our neglect and thoughtlessness.

Meanwhile our young and promising architects were cheated out of work that would have been

invaluable to them (won in fair and open competition), cheated by a system which allowed the ignorant and the untrained to encroach upon their domain and thrive and flourish there.

All this can now be changed if our President receives the backing he so richly deserves from all the architects in this State.

We ask the older and the more successful architects to give it their interest and valuable support, and we know we do not ask in vain.

Surely it is all important in the growth of any City Beautiful that the homes of the people should be designed by architects?

And our State is not to be last in its building of "Cities Beautiful."

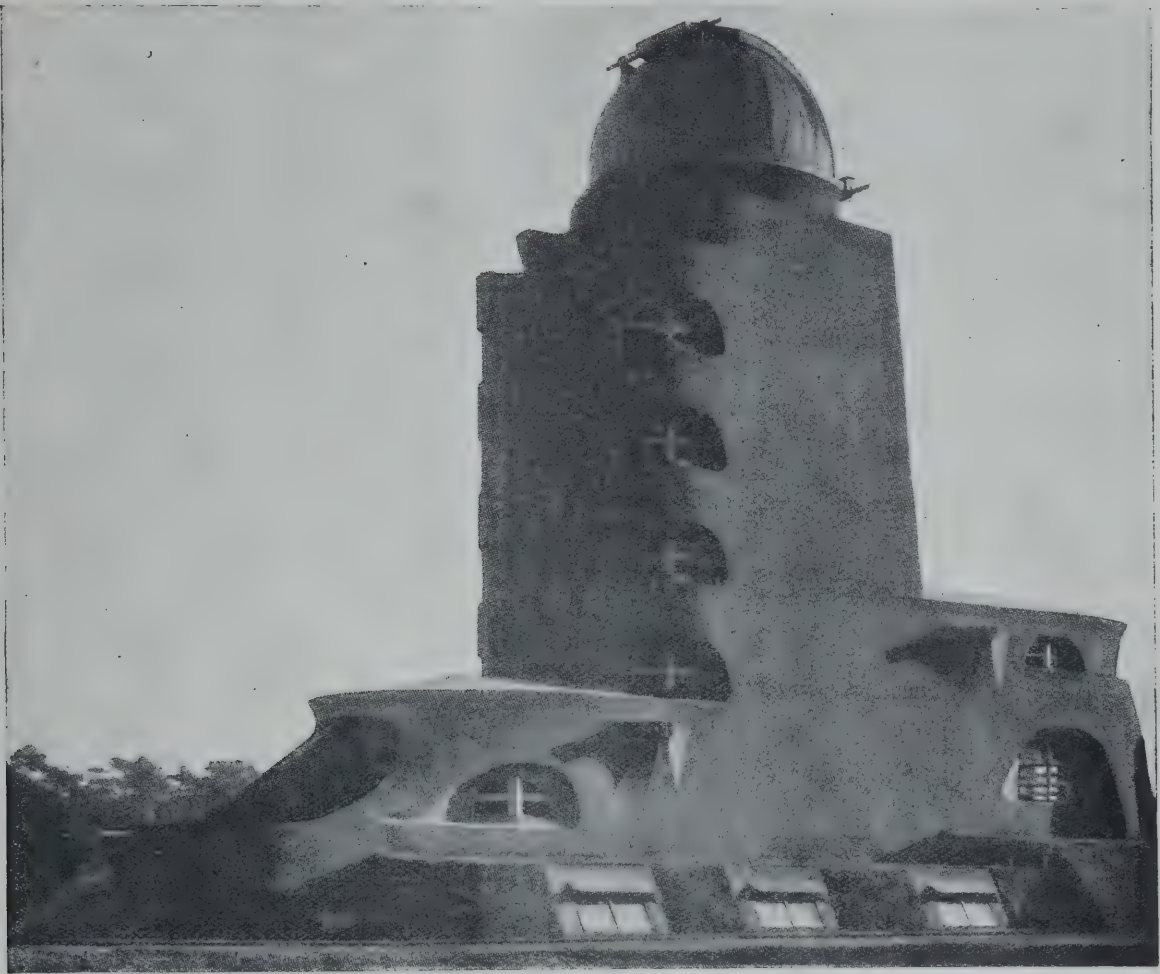
It has been rightly said that a nation's true strength and greatness is to be found in the homes of the people.

The happy and contented man and woman and the healthy child growing up in better surroundings; the best that we can give.

This is our responsibility.

We look into the future and know that it must come.

Let it come in our time.



THE EINSTEIN TOWER IN POTSDAM (Western View).

Designed by Erich Mendelsohn. Reproduced from Die Kunst.

RECENT GERMAN ARCHITECTURE

IN the April number of *Die Kunst*, there is an interesting account of the recently constructed Einstein Tower, in which the famous scientist is carrying out his experiments. This was the first large work designed by Erich Mendelsohn, of Charlottenburg, Berlin, and its originality has placed him in the front rank of the younger generation of German architects. The Tower stands outside Potsdam, where the native woods have been carefully preserved. "From the railway station," says the writer of the article, "you motor along a road between a wood. In twenty minutes you find yourself in a park-like country and over a hilly landscape,

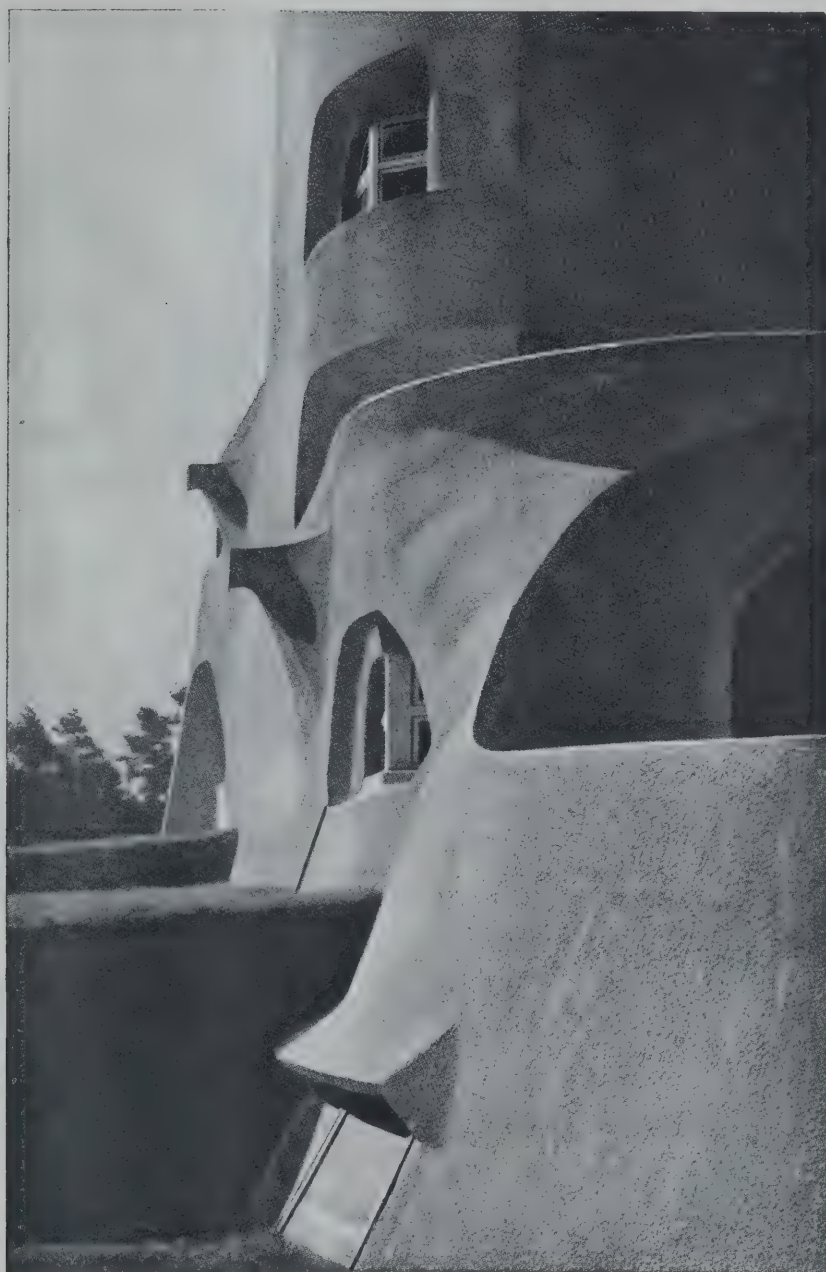
you catch a glimpse of a building crowned with a dome. Its appearance is unfamiliar.

Almost all our buildings still belong to the end of the last century; and in most of them the architects have still been under the influence of historical styles. For example, when we see buildings with domes, we generally have an impression of Roman influence, but that is not so with this building. The Einstein Tower, as you observe it in all its massiveness, stands in an order by itself, and gives you the impression of something you have never seen before. In this building there is a large strong base upon which rises a vertical



THE EINSTEIN TOWER FROM THE SOUTH
EAST.

Architect, Erich Mendelsohn.



DETAIL OF THE EINSTEIN TOWER.

Architect, Erich Mendelsohn.

Reproduced from Die Kunst.



THE MONTANHOF BUILDING IN HAMBURG.

Architects, H. Distel and A. Grubitz.

Reproduced from Moderne Bauformen.

mass; he has had the happy idea of using his ferro-concrete in monolithic masses. He has also avoided the danger of monotony. Many architects would have erected a tower with only vertical lines; but Mendelsohn has directed the eyes to the dome in another manner, the elliptical window openings being in rhythmic contrast to the vertical lines of the tower, until at last, the eye is drawn gradually upwards, till they find rest in the round of the dome. In order to fully understand the architecture of this building, one should know something about the technical purposes, for which it was constructed. There is not, as might ordin-

arily be expected, a telescope for the examination of the stars. Inside the tower there stands entirely isolated a second tower made of wood, whose base is very far below the surface of the ground. At the top there are two very powerful mirrors, a lens being horizontally placed half way. These mirrors catch the light and send it to the depths below, where it is caught by a third mirror. The two towers give an absolutely equable temperature, the main laboratory being deep down under the earth, broadly spread out. Here instruments of unbelievable fineness are used. The laboratory is reached by a winding staircase, round the wooden tower.

From the April number of *Moderne Bauformen* there is reproduced the Montanhof Building in Hamburg, the architects being H. Distel and A. Grubitz. In this corner place the problem was to make a centre building with two wings.

This edifice, which is nine stories high, was constructed of Oldenburg bricks, majolica being used for some of the decorations. The windows were done in chrome yellow and white. Two colossal figures occupy niches high up on the central facade.



COLOSSAL CUBISM

THE TWO COLOSSAL FIGURES,
CENTRAL FASCAD. MONTANHOF BUILDING.

From Moderne Bauformen.



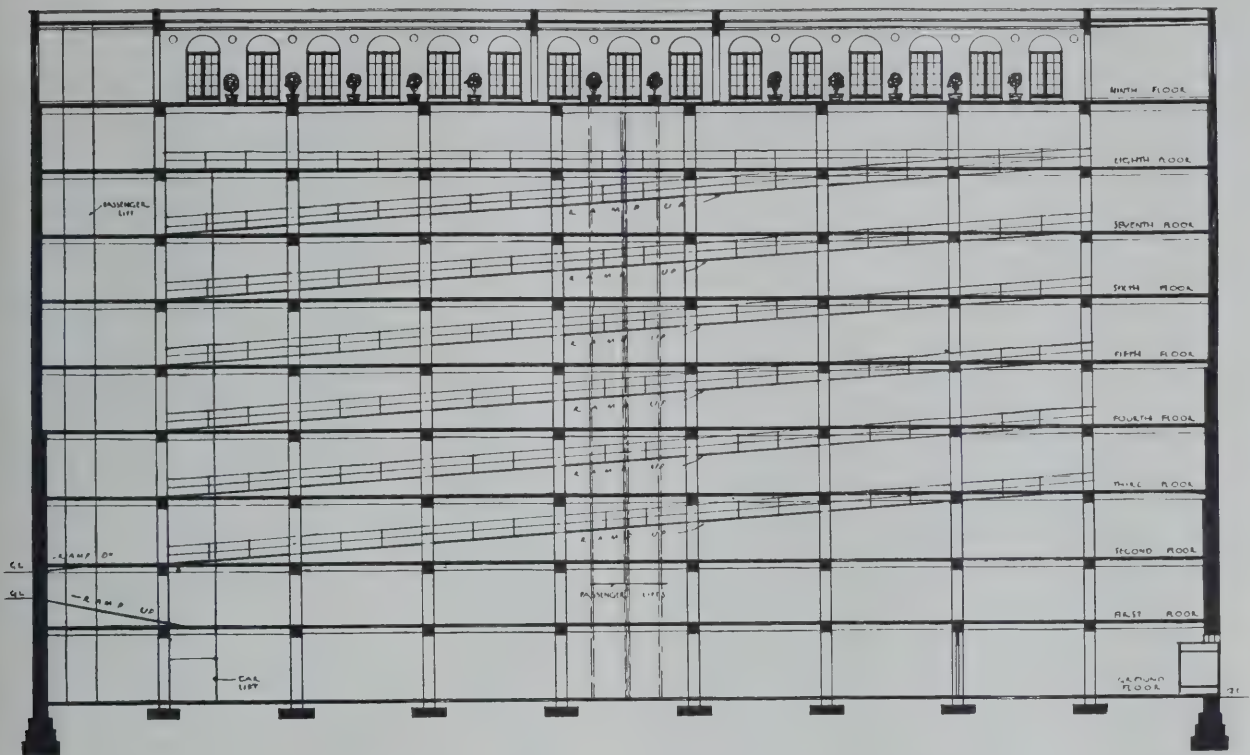
CIRCULAR QUAY PARKING STATION.

*H. E. Ross & Rowe, D. T. Morrow & Gordon,
Joint Architects.*

SYDNEY PARKING STATION

THE transformation of the wool store of Goldsbrough, Mort & Co., Central Quay (an island site accessible on all four sides) into a central parking station, will be carried out from designs made by the architects, Messrs. D. T. Morrow and Gordon, and H. E. Ross and Rowe. It is proposed to utilise the exterior walls of the existing building, which are very strongly constructed, and eminently suitable for the purpose,

by reconstructing the interior with steel and reinforced concrete pillars and floors; and by adding two stories, making the structure ten stories high altogether. The plans provide for the very latest ideas in modern garage construction and equipment. Due to its suitable location, three of the nine floors for parking, may be entered from the street level, the upper floors being reached by inclined driveways or ramps, with easy grades,



Longitudinal Section.

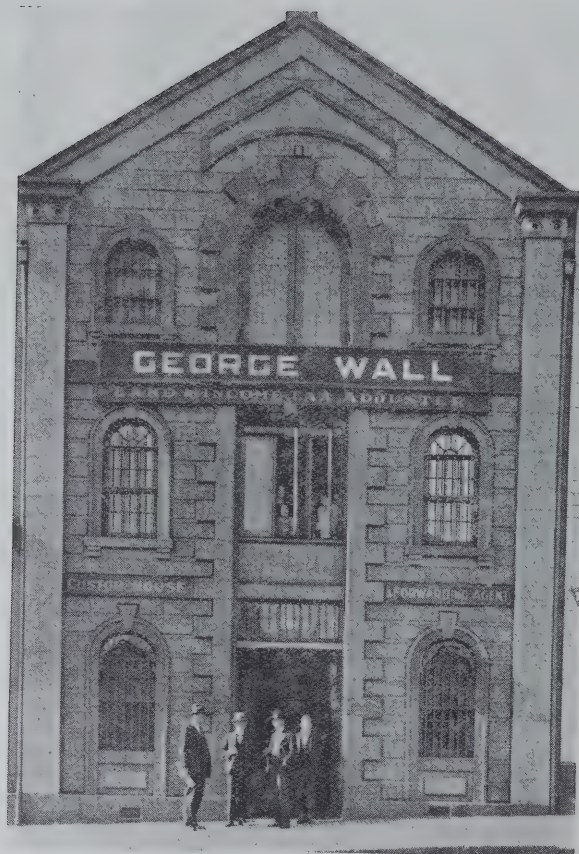
Showing the easy grade of ramps between floors.

no greater than that of Martin Place, between Pitt and Castlereagh Sts.; and wide enough to permit up-and-down traffic simultaneously. Three passenger lifts and one car elevator will be installed, but there will be no need to use the latter, unless that method is preferred. The total number of the cars, which the garage will be able to accommodate is 935, or about 104 on each floor. Each car will have a numbered stand, separated from its neighbour by a concrete division, six inches high and nine inches wide, every car being able to enter or leave without disturbing another. The whole of the Young Street frontage and part of the Alfred Street frontage will be converted into modern shops which will be leased to suitable tenants, whilst the top floor and the roof will be constructed as an up-to-date Restaurant com-

manding a magnificent view of the Harbour and North Shore Bridge. At the main entrance, in the centre of the building on the ground floor, will be a large hall or lobby in which will be located enquiry and telephone bureau; news stand and flower stall. A Ladies' Rest Room will be located on the top floor opening on to the Roof Garden, furnished with the sole idea of affording maximum comfort and convenience to patrons of the garage. The main offices of the Company will be situated on the second floor, connected by telephone with every part of the building, and to the check offices at each entrance. Adjoining the Roof Garden will be Club and Reading Rooms for men, whilst there will also be a Chauffeurs' Waiting and Recreation Room, with pool and billiard tables.

WALL HOUSE

THE OLD AND THE NEW



(Top)
THE PRESENT WALL HOUSE,
BUILT 1926.

Photograph by Bostock.

(Left)
WALL HOUSE OF THE PAST,
BUILT 1842.

THE old order changes giving place to new. Wall House in Loftus Street, which was designed by Mr. E. L. Sodersteen, superseded the old building, which was erected in 1842. The establishment of the firm of George Wall, shipping, customs and forwarding agents, goes back even before that, being started close on a century ago, by Mr. J. B. Metcalf, the founder of the Stock Exchange. The new building, which has a frontage of 30 feet, is 125 feet in height.

Owing to the narrowness of the building, the problem of lighting was a difficult one, but by the use of large window spaces, a maximum of lighting was provided. Welcome notes of colour have been introduced by the shield between the two arched windows and the russet red tiles of the roof. The colour scheme of the shield, which symbolises the branches of business carried on by the firm, is in red, blue and gold.

THE MODERN NEWSPAPER OFFICE IN SYDNEY

THE "EVENING NEWS" BUILDING

INTERVIEWED by the "Evening News" on the completion of its new building, which was designed by the firm of Spain and Cosh, Colonel Alfred Spain, F.R.I.B.A., ventured to say, that no newspaper in the world had better facilities. It was right up-to-date in every essential, and the equipment throughout was the last word.

"During my recent tour abroad," he remarked, "I was invited by the directors of the company to examine the newspaper buildings, and the lay-out of plants in all the new and modern newspaper premises, particularly in Chicago, New York, and Philadelphia, I made a very close inspection of the Chicago "Tribune" new building, which was in course of erection. That building is a colossal undertaking. It is now finished, and stands higher than the Wrigley Building, which is almost opposite. I have been given to understand that it is to be the last of the tallest buildings in that city. It has been erected at enormous cost, and is provided with wonderful plant and machinery. It goes down some hundred feet below the level of the pavement.

"I made an inspection of important Press buildings in New York and Philadelphia, and they were the most interesting and instructive of the plants seen during my travels. I was particularly struck with the 'Bulletin,' the 'Liberty Press,' and the Curtis Publishing Company. One may say that Philadelphia may be regarded as the centre of the world of the Press. When comparing the 'Evening News' new building with those just mentioned, I venture to state that no newspaper in the world has better facilities.

"There is ample space. There are windows on all sides. There is a most modern equipment well laid out, and the machines permit of the production of a great volume of work of superior quality at a high rate of speed. All the floors are fitted with a rapid elevator service, and precautionary measures have been taken against fire, extinguishers and alarms having been installed, and everything possible to minimise risk provided. "In the new 'Evening News' building all sanitary and health matters have been fully provided for throughout. Safety devices in the mechanical departments have received very close attention.

Establishments of rest and recreation, an exercise room, and a cafeteria have been provided on the top portion of the building, adjoining the roof garden. Everywhere electricity is found performing difficult tasks smoothly, noiselessly, and instantly, the mechanics having merely to push a button.

"An important adjunct to the whole scheme is the motor garage, recently completed not far from the new building. It is fitted with the latest appliances for repairs and the housing of spares, duplicate parts, and general storage. This building is in a convenient locality, and so is in close touch with requirements at a moment's notice.

"I might well be asked: 'How has all this been accomplished?' I say it has been possible because of the fine organisation. In the first place, every assistance has been given by the Managing Editor, Mr. E. G. Knox, who has been untiring in his efforts to convey all the requirements of the building. There has also been the assistance of his staff, particularly Mr. Carthew, the Chief Engineer, and the heads of the mechanical departments. All this has proved invaluable to the architects and builders in carrying out this important work.

"In the execution of the work, the same must be said of the builders, Messrs. Stuart Bros. Mr. William Stuart, who has had such wide and extensive experience in the erection of newspaper buildings, knew exactly the difficult task his firm was faced with in the erection of such important premises in such limited time. And the work has been performed with loyal support of his staff of employees and the sub-contractors.

"Here the question of organisation presented itself again. After several conferences, the builders prepared a schedule of time, and fixed the dates for the completion of the various sections of the building. Those times were adhered to from start to finish, and that enabled all to feel satisfied that the building would be completed within the time allowed.

"The gratifying result has only been achieved by the harmonious relations which have existed all through in every section of the work. That has made it possible for us to create what is almost a record for Australia in the erection of big city premises, with frontage of two streets, in one of



THE NEW "EVENING NEWS" BUILDING,
Castlereagh and Elizabeth Streets, Sydney.
Spain and Cosh, Architects.

the busiest parts of the city. I desire to extend, on behalf of my firm, my appreciation and thanks to the Managing Editor and his staff, and to the builders, Messrs. Stuart Bros."

Interviewed by the same paper, Mr. William Stuart, senior, head of the firm of Stuart Brothers, said, that the change over from the old building in Market St. to the new premises had not been equalled in the history of printing in Australia. This firm erected the "Daily Telegraph" Office, the premises occupied by "The Sun," and are at present engaged on the erection of the massive building for the "Sydney Morning Herald."

"It will be readily understood," observed Mr. Stuart, "that the transfer was one of great magni-

tude, and called for organising and administrative ability of the very highest quality. So well, however, had the work been arranged, that each man responsible knew just what had to be done, and, as a result, there was neither confusion nor the least hitch in any part of the proceedings.

"As machine after machine was removed from the old to the new building, each was received without delay and fixed in its proper place, ready to do its work in the production of the papers without a break in any of the operations, or without the slightest delay. Within a space of 24 hours, machines that had been operating in the production of the papers in the old building, were removed and re-erected and ready to take their part in the production of the papers in their new home."



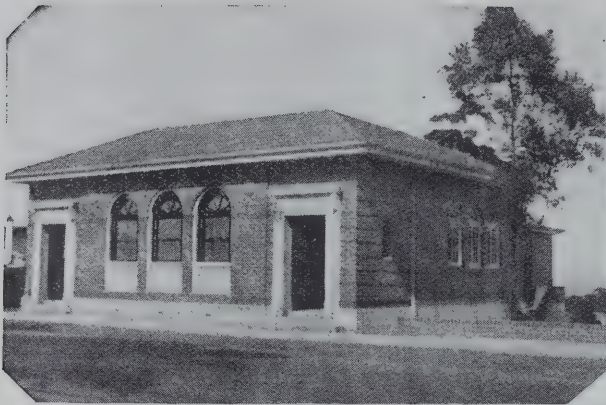
CITY SOUTH TELEPHONE EXCHANGE,
SYDNEY.

*Designed by Commonwealth Government Architect's
Office.*

THE NEW TELEPHONE EXCHANGE

THE City South Telephone Exchange, which has been designed by the staff of the Government Architect's Office, in Sydney, will control the telephonic communication of the main business portion of the city. Erected on an island site, adjoining the Fire Brigade Station in Castlereagh Street, it has ample provision for light on all sides. Consisting of six stories, the ground floor is 20 feet, and the others 15 feet

in height, this space being necessary for the instalment of the automatic apparatus. A feature of the front of the building is worth noting. The facade is placed in such a position that it leaves a framework, in which all the moulds and cornices return on themselves. This is done by treating the front independently of the main building. In short, the facade may be regarded as a relief, the main block being indicated by the outer lines.



POST OFFICE,
LINDFIELD.

*Designed by Commonwealth
Government Architect's
Office.*



SURREY HILLS'
POST OFFICE.

*Designed by Commonwealth
Government Architect's
Office.*



KILLARA POST OFFICE.

*Designed by Commonwealth
Government Architect's
Office.*

SUBURBAN POST OFFICES

THE new post offices erected in some of the suburbs around Sydney have a dignity which is not usually associated with these necessary places. They have attracted so much attention, that they are now regarded with pride by the local inhabitants, as a worthy addition to the architecture of each suburb, where one has been introduced. The late Colonel Vernon took the view, that the State Government should take the lead in architecture; and the need of having something better than the drab structures of the past, has evidently imbued the staff of the Commonwealth Architect's office in Sydney with this idea, in connection with these new post offices.

Owing to its alignment with the neighbouring shops, the facade of the Surrey Hills office, which is constructed of brick, with cement facings, had to be kept quite simple. There were more opportunities in designing the post office at Lindfield, which was carried out on more modern lines, and has a character of its own. For a small building, it has a rare appearance of solidity and balance. Erected on a large area of vacant land, the Killara Post Office has been set in harmonious surroundings, the main entrance being the striking feature of the building. Instead of the usual paling fence, a low brick wall runs alongside the footpath.

NOTES AND NEWS

Mr. S. Hurst Seagar, F.R.I.B.A., F.N.Z.I.A., M.T.P.I., was elected president of the New Zealand Institute of Architects, at the last annual meeting.

The British Postmaster-General has adopted a design by Sir Charles Gilbert Scott for a public telephone box.

AN OVERCROWDED PROFESSION

In an article in the *Daily Express* (London), on architecture as a profession, Sir Reginald Blomfield, B.A., observes, that under present conditions, the prospects of architecture as an opening for young people is far from promising. Money, he adds, is scarce, building is too costly, and there are far too many architects for the work to go round. The Royal Institute of British Architects, since the amalgamation of the Society of Architects, numbered 8,000 alone.

CIVIC CENTRES

The need of a civic centre in Sydney was stressed by Sir John Sulman in the sixth of the Vernon Memorial lectures on town planning, given at the Royal Colonial Institute. It was much more economical in administration to group buildings among which there was much inter-communication than to have them scattered, he remarked. As to their inspiring effect, in fostering civic pride there could be no question at all, while it could not be too strongly enforced that civic pride was the basis of all civic progress. There were hundreds of cities in the United States, all more or less rivals for commercial supremacy, and a fine civic centre became a symbol of prosperity, and an excellent advertisement. Hence the citizens were willing to subscribe the funds required to inaugurate a scheme, and usually had sufficient power to influence the local authorities to carry it out.

SOME BUILDING

Some interesting facts are given in *Architect and Engineer* regarding the Telephone Building in

San Francisco, which towers above all the other structures in that city. Its size is 150 by 160 feet, rising 436 feet from side walk to flagpole, there being nearly six acres of exterior wall surface. There are 26 stories, the total cost of building being four million dollars.

A GLOOMY PROSPECT

A correspondent writing to the editor of *Architecture* (London), from Budapest, remarks that the present conditions in Hungary, are not conducive to architectural developments. Architects were therefore undergoing a period of enforced idleness, or they spent their time in drawing plans, with little or no prospect of their ever being put into execution. The principal work had come from outside, a few leading architects having been successful in competitions for designs for important buildings in Paris, Antwerp and Chicago.

AN ARTISTS VIEW

In a lecture on "Architecture from the Artist's Point of View," which was delivered before the Royal Victorian Institute of Architects, Mr. J. S. MacDonald, in summing up, said that artists would like to see six things: (1) the corners of buildings at street intersections cut off, in order to facilitate traffic and provide better vistas; (2) more arcades; (3) more domes and cupolas; (4) more campaniles; (5) choice ornament and fine lettering on buildings; (6) the limit on the height of buildings modified. He added that all artists would like to see interiors arranged, with spaces for mural decorations.

WATERLOO BRIDGE

The Improvements Committee of the London County Council has proposed that competitive designs should be called for a new Waterloo Bridge. The matter has been referred to the Royal Fine Art Commission, which, while deploring the removal of the existing bridge, has agreed to give the Council its support.

STUDENTS ABROAD

THE reports regarding the progress of Kenneth Hamlyn McConnell, a former student of the School of Architecture at the University, who won the Australian Medalion and the Travelling Scholarship, valued at £400, awarded by the Board of Architects of New South Wales in 1925, are very satisfactory. In a letter to the Registrar of the Board, Mr. Hubert G. Corlett, O.B.E., F.S.A., F.R.I.B.A., its London representative, wrote on February 24th, that he had heard from Mr. Maurice Webb, that Mr. McConnell was doing good work in Sir Aston Webb's office. He added that he was given a place in this office through the desire of Mr. Maurice Webb, to help him, in the latter's capacity, as Chairman of the Board of Architectural Education of the R.I.B.A. Mr. Maurice Webb is the son of Sir Aston Webb, who was formerly president of the Royal Academy.

Regarding his studies, Mr. McConnell reported to the Board in a letter, dated February 27th: "I arrived in this country in September last year," he wrote, "and spent the first three weeks visiting various places in the South of England, including Salisbury, Wells, Bath, Bristol and Gloucester, doing such sketches, measured and otherwise, as time would permit. From October last, I have been assisting Sir Aston Webb in his office, and studying at night, first at the South Kensington Museum, and latterly at the University of London Architectural Atelier. In December last I sat for the final papers in Professional Practice at the Royal Institute of British Architects, which I passed, thus qualifying for the degree of Associate R.I.B.A. I propose to proceed to Italy and

elsewhere, early in May of this year, to continue my studies abroad." On March 29th, Mr. Corlette informed the Board that he had received a letter from Mr. Maurice Webb, of the firm of Sir Aston Webb and Son, who stated that Mr. McConnell worked very hard, and they were very glad indeed to have him in the office.

There was no scholarship awarded to a student of the School of Architecture at the Sydney Technical College in 1925. It would have been awarded to Meredith Saphir Smith, if he had gone through the prescribed course. Owing to his outstanding ability, the members of the Board provided the funds, for a special grant to this student. In a letter to the Board, dated March 23rd, he reports that he presented his credentials to Professor Richardson, and was at once admitted to the Architectural Atelier, associated with the School of Architecture, London University.

Walter Hayward Morris, a former student at the School of Architecture at the Sydney Technical College, who was awarded the Travelling Scholarship in 1924, expects to be back in Sydney in November, and will return through the United States. He has been working in the office of Mr. Frank Verritty, where another former student of the school, Samuel Beverley, is on the staff. The latter married his employer's daughter, so he appears to be settled in London for life. William Rae Laurie, a former student of the School of Architecture at the University, who was awarded the Travelling Scholarship the same year as Mr. Morris, returned to Australia some time ago. He is now in the office of Messrs. Hall and Devereux, Brisbane.



FUTURIST FURNITURE.

Furniture designed in conformity with the principles of cubism, and shown at the Exposition of Decorative Arts, Paris. 1925.

N.S.W. ARCHITECTS' ANNUAL EXHIBITION 1926

THE 1926 Annual Exhibition was opened on 1st June by His Excellency the Governor-General. The President, Professor A. S. Hook, introducing His Excellency, said in part: Architecture is essentially a people's art, although some of its aspects only appeal to those with a technical education. In fact, in a civilized community no man can fail to come under the influence of this art. Architecture for most of us determines the surroundings to which we open our eyes in this world. It has to do with the homes in which we spend our childhood. It builds the schools in which we are educated. It arranges the shops, factories, studies and offices in which we later earn our daily bread. When we worship—whether we worship God or mammon—it is Architecture which determines the style and, to a very great extent, the atmosphere in which we worship. That so ubiquitous and vital an art should interest men in all times is no more than might be expected. Browning says:

"For, don't you mark, we're made so that we love,
First when we see them painted, things we have passed
Perhaps a hundred times nor cared to see;
And so they are better painted—better to us,
Which is the same thing. Art was given for that;
God uses us to help each other so,
Lending our minds out"

and that might be said to express the object of this Exhibition—it is hoped to direct your attention to that greater exhibition of architecture and building work that you see going on outside all the time in the building of Sydney, all that has been done in the past, and the still greater work that will go on in the future. We want to arouse your interest in this work, which is the work of the Architect and the Architect's dearest and closest colleague—the Builder. Now, though there has not been in our time quite so much obvious interest in architecture as we could desire, architects in the past have been particularly fortunate in this—that those who have been called to lead mankind have always shown great interest in the building of great things. We have an outstanding example of this in the "great Macquarie," who set architecture in Australia on a great basis right in the earliest days of our history. Other Governors have followed along the path laid down by Governor Macquarie, and always their interest has been for good. It has been the privilege of the Institute of Architects to have many of the King's Representatives here to open our Annual Exhibi-

tions and to attend our Annual Dinners, and this year we have the privilege of welcoming His Excellency Lord Stonehaven to this oldest established Institute of Architects in Australia.

We very much regret that Lady Stonehaven was unable to be present this afternoon as we know that she is personally and sincerely interested in the Mother Art—on behalf of the Institute of Architects of N.S.W., it gives me the greatest possible pleasure to welcome His Excellency and to ask him to be so good as to declare our Exhibition open.

His Excellency Lord Stonehaven said that it was upon architecture that a great deal of the future beauty of this country would depend. Did the Architects of Australia want an opportunity for their art? They have at Canberra one of the most marvellous sites in the world for the building of a city, and I look forward, even in the short time I may be here, to seeing some splendid building going on there.

The opportunities for creating a fine school of architecture are greater to-day than at any period of the world's history. In Europe we have to replace the priceless masterpieces ruthlessly destroyed during the war. Here, in Sydney, accommodation has to be provided for the growing population of a great city. In a building scheme I see no necessity why a factory should be ugly, any more than a school. The uncompromising hideousness of some of the old industrial towns in Britain will soon give place, I hope, to surroundings more in keeping with modern ideas of civilised life.

Mr. Godsell, President of the Board of Architects of N.S.W., proposed a vote of thanks to His Excellency, which was seconded by Mr. James Peddle, Hon. Treasurer of the Institute.

Apologies were received from Sir Charles Rosenthal, who was unavoidably absent, and from Mr. A. W. Anderson, who was ill.

Lord Stonehaven showed great interest in the work exhibited, and with the President, made a very careful inspection of the whole gallery. There was a large attendance of interested members and guests.

The Exhibition, though not so large as that of last year, is perhaps of the highest standard yet

attained, and more representative of the variety of buildings which are being executed in the State of N.S.W.

The remarkable progress of the City is well shown by several fine drawings of imposing buildings, not "castles in the air," but actual realities are in progress. The new building regulations as to height of buildings are being eagerly availed of. Notable among recent enterprises and as examples of modern Architectural treatment may be instanced the following:—

Messrs. David Jones' New Store, for which Messrs. Budden & McKellar are Architects; Messrs. Bennett & Woods' premises, a portion of which is being erected, Messrs. Spain & Cosh, Architects; Professional Chambers, Macquarie Street, by Messrs. Peddle, Thorpe and Walker; Re-modelling of E.S. & A. Bank, and Bondi Hotel, by Messrs. Robertson & Marks; "Evening News" Office, designed by Messrs. Spain & Cosh; St. Luke's Hospital, for which tenders are being called, by Messrs. Joseland & Gilling, and Lithgow Hospital, by Sir Charles Rosenthal & Day; an imposing building proposed to be erected from the plans of Messrs. A. O. Beattie & L. C. McCredie.

Sydney High School for Boys should be mentioned as a departure from the usual type of school building, and a well grouped composition. Messrs. Wright & Apperley's design for Church of England, Manly, in decorated Gothic.

The Exhibition would have been the richer for illustrations of the many more important buildings growing up in our streets.

The University and Technical College Students

have among their exhibits some very clever designs and drawings, A Town Club, by Raymond McGrath, calling for special mention.

An ambitious design is a War Memorial by A. E. Barnard, though somewhat restless and wanting in restraint.

E. M. Sodersteen shows a design for a Swimming Bath of somewhat similar qualities.

A Boarding School for Boys by A. E. Barnard, carefully thought out and well drawn.

G. A. McDonald sends some fine sketches, notably that of Como Cathedral, and Eric Thompson's drawings call for special mention.

Domestic Architecture section gives evidence of the very welcome departure which is being continued from the Californian Bungalow style, which has run riot here. The advance in house designing promised to considerably redeem us from much nondescript work of past years.

The designs shown in this section are, on the whole, of a uniform level of high standard, so much so, that it would be invidious to single out the work of any one firm.

The Howard Joseland prize brought forward the best response yet, and it was no easy task for the Judges to place the first. As the best collection of measured drawings, however, those of Harry Foskett were considered to best fulfil the conditions. None of the drawings, however, came up to a very high standard, and some of the field notes were not such that would have been sufficient service to a draughtsman.

A detailed criticism will be published in our next issue.

ARCHITECTS' ANNUAL DINNER 1926

THE Institute of Architects of N.S.W. held its 55th Annual Dinner at the Hotel Australia, on the evening of the 8th June, and entertained as Guest of Honour, His Excellency Lord Stonehaven, the Governor-General. Among other guests were Sir Bertram MacKennal, Mr. G. H. Godsell, President of the Board of Architects of N.S.W.; Lieut. Leggatt, A.D.C. to His Excellency; Mr. A. D. Craig, President of the Institution of Surveyors; Mr. Tivey, Chairman of the Institution of Engineers; Mr. A. Speers, President of the Master Builders' Association of N.S.W.; Mr. S. Ure Smith, President of the Society of Artists, and Mr. E. Williams, Registrar of the Board of Architects.

Many apologies were received, among them being those of the Premier, the Hon. T. D. Mutch, M.L.A., Dr. Woolnough (Royal Society), W. Lister-Lister (Royal Art Society), Mr. Harding (Quantity Surveyors), Mr. A. W. Anderson, Vice-President of the Institute; Mr. Peddle, Hon. Treasurer; Messrs. C. H. Kent, E.H.E. Lodge, C. D. Leak, G. Hughes.

The Dinner was not so largely attended as the Council had anticipated; unfortunately, there were many last minute apologies owing to the prevailing influenza.

In proposing the toast to His Excellency, the President, Professor A. S. Hook, spoke of the

age-long unity and co-operation that had existed between Rulers and Architects. He said in part—for thousands of years—as long back as history recorded, there has always existed close co-operation and community of interest between governors of nations and those who follow our Mother Art.

This, the oldest Institute of Architects of Australia, can look back to many happy occasions when it has been the privilege of its members to entertain Representatives of Kings, and when the friendly influence of these Representatives had been of inestimable value to the Institute in its efforts to serve the community, and to help in cementing by every possible means in its power the unity of the Empire. It is more important, he said, that our work should be worth while to the age in which we live than it should to bring to us, individually, material benefits, and if for that reason, it is well only, it is well that the Institute should sometimes have the honour of entertaining as their guest the Representative of the greatest Empire the world had ever seen. It gave him the greatest possible pleasure to propose the toast of "His Excellency."

His Excellency, responding, expressed his pleasure at the sincere welcome they had given him, and said he would like to again reiterate his opinion, that the opportunities from the standpoint of architecture in Australia were superb. "The sites available here," said His Excellency, "are second to none in the whole world," and went on to say that in Sydney Harbour there is not only the possibility of making the finest estuary in the world, but also one of the most magnificent sites for the building of architectural monuments, that exists. Again, His Excellency expressed his delight in the possibilities of Canberra as a site for beautiful architecture. He recounted many interesting episodes of his travels, comparing the architecture of different countries and ages, and pointed to the responsibility that went hand in hand with the opportunities for architecture presented in Australia. He said: "For we shall be known to future generations by the kind of building we leave behind us. I believe there is nothing more striking in the Home Country than the old country homes—such as the one in which I grew up. These are monuments of a by-gone day, but they have their influence on the present generation." In closing, His Excellency expressed a sincere desire to be of service to Australia—to mankind—in every way, and assured his hearers that he would be only too glad to help them should an occasion arise during his stay here when he could do so.

Sir Charles Rosenthal, proposing the toast of "The Board of Architects," spoke of the splendid work the Board, in its short life-time, had already done, and of the splendid outlook of the work lying ahead of it. He said that great things were being mapped out for its future usefulness, and he was sure that the influence of this very representative body will be far reaching and always for the good of the State.

Mr. G. H. Godsell, President of the Board, responding, said he was sorry that the Hon. Mr. Mutch was unable to be present, as he could have told the members very much more of the interesting history of the legislation that brought the Board into being, than he could. He spoke of the scholarships already established by the Board, and of its great value in the educational world of the State. "There will be wonderful opportunities in the future for work the Board is preparing," said Mr. Godsell, "we have here the greatest system of education in the world, and the assistance that the Board is going to give in connection with architectural education will be of untold value to this system."

Mr. H. E. Budden proposed the toast of "Our Guests," speaking of the various interests of Engineers, Surveyors, Sculptors, Artists, Builders, etc., that held them together as friends and fellow-workers for the Community and the Empire.

In responding, Sir Bertram MacKennal held his hearers enthralled as he spoke enthusiastically of the wonderful beauties and opportunities for beautiful building he saw around the city of Sydney. He said he was Australian born, but had been away so long that much of what he now saw was really new to him—he had received the greatest revelation of his life in the study of the glorious colourful surroundings of Sydney. He drew many interesting word pictures of what he saw lay open before the architects of N.S.W.

Mr. Speers, President of the Master Builders' Association, also responding to this toast, expressed deep appreciation of the association of the architects and builders, and spoke of the spirit of service and pride of achievement that he found again and again under-lying the motives of the architects as a body, and of the constant effort towards community service made by the Institute. Mr. S. Ure-Smith, President of the Society of Artists, proposed the health of the President and Council of the Institute. The President responded briefly.



CLIFTON, BURNSIDE, SOUTH AUSTRALIA.

Photograph by A. Wilkinson.



WAR MEMORIAL, NEWINGTON COLLEGE,
SYDNEY.

Architects, Wilson, Neave and Berry.

ARCHITECTURE

AN AUSTRALIAN MONTHLY JOURNAL

Published by ART IN AUSTRALIA LTD., SYDNEY

PRICE ONE SHILLING



"CRAIGNAIRN," WAHROONGA. SYDNEY

Architect: Harold Joseland

ARCHITECTURE IN EUROPE

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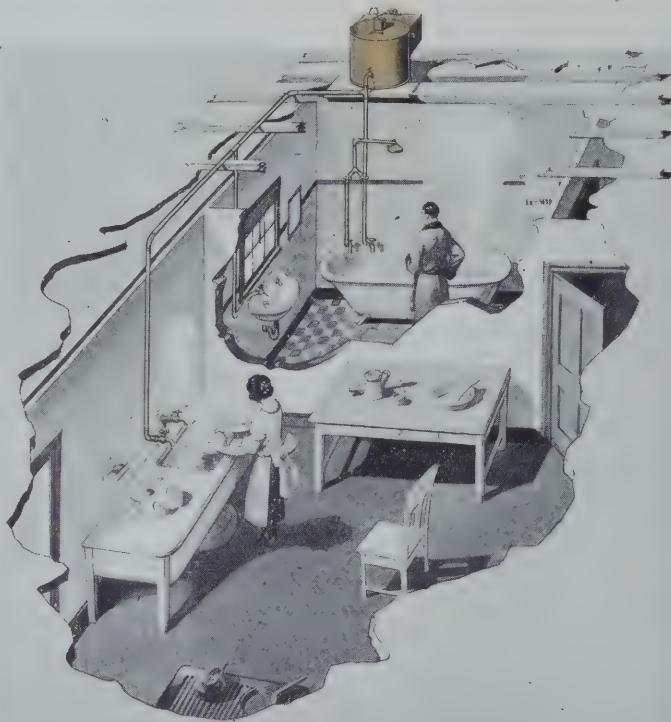
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Cruttenden, F. P. (Darling Pt.)
Crocket, Jas. (Wahroonga)
Dearberg, S. L. (Coogee)
Davis, P. H. (Rose Bay)
Deane, F. G. (Double Bay)
Gray, S. F. (Watson's Bay)
Garland, J. (Lindfield)
Gould, G. (Rose Bay)
Gale, C. C. (Cremorne)
Harrison, A. (Neutral Bay)
House, A. (Wollstonecraft)
Hollis, R. E. (Dorrig)
Keep, Edward (Double B.)
Kelk, J. R. (Wagga)
Lane, J. C. (Grafton)
Maher, Dr. H. Odillo (Double Bay)



Some of our installations:

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Norton, Ezra (Vaucluse)
Prevost, R. a de (Edgecliff)
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Phillips, B. (Neutral Bay)
Sutton, G. R. (Pymble)
Sly, Dr. G. J. (Double Bay)
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Thompson, N. M. (Double Bay)
Tylor, S. L. (N. Sydney)
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July, 1926

ARCHITECTURE IN EUROPE

Some Impressions by Professor Leslie Wilkinson

THE itinerary of Professor Wilkinson during his recent visit to Europe included Greece and Crete, the coastal cities on the eastern side of the Adriatic, and Italy, Holland, Denmark, Sweden and England. In the course of a conversation he was good enough to give some impressions of the work which particularly attracted him during his interesting tour.

Speaking of the more recent work, he said he was much struck with the examples he saw in Sweden, where the architects had had the advantage of being able to continue their work comparatively undisturbed by the war. He thought that the Town Hall, Stockholm, which was designed by Professor Ragnar Ostberg, and completed in 1922, was the finest building of modern times. It had been carried out in big restful masses, relieved with contrasting touches, in the treatment of the walls. All the arts had been employed in the embellishment of this imposing structure, the various elements being extraordinarily well harmonised and very completely carried out. Among the things which particularly impressed him was the attention given to colour, externally and internally; the place given to painting and sculpture in the decorative scheme; the fine craftsmanship shown in the fittings and the furniture; and the layout of the spacious gardens. He felt regarding the building as a whole, that its designer, working with a knowledge of the past manners of building and in the spirit of the best of them, had produced something quite fresh and satisfying. There was the same sense of harmony, which he observed in the rare buildings in Venice, which he saw a fortnight later. From what he could judge, Sweden and also Denmark had not become industrialised to the same extent as other European countries, and consequently the craft-work seemed to be carried out in the spirit which imbued the craftsman of the Guilds in olden times.

There was a fine sense of dignity in the layout of the city and the buildings themselves, in Copen-

hagen, where there were no sudden transitions between the medieval buildings and those which came later. There were whole streets which had attractive buildings. He didn't see any evidence of a bad period, and the modern work was very good. In Rotterdam and Amsterdam the housing schemes, urban and suburban, were interesting and alive and far above most of those in this direction. Bigger blocks with courts and gardens had been erected in the city and the whole of some of the new districts had been brought into the scheme. The method of using bricks in these cities and in Hamburg was unusual and striking.

The re-modelling and re-building in London, he remarked, had resulted in the erection of such large buildings as the County Hall and the Bush Building. Among the more recent notable buildings were: The Port of London Authority, designed by Sir Edwin Cooper; Adelaide House by Sir John Burnet and Britannic House by Sir Edwin Lutyens, who designed the Cenotaph in Whitehall. The erection of the Pensions Office at Acton was a new departure, as far as Government Departments were concerned. A vast straight-forward structure, built economically, it was placed in a residential area, a wonderful massive effect having been obtained by simple means.

Housing schemes were being carried out all over England. The most valuable example was the Welwyn Garden City, near Hatfield, which represented the successful application of sound principles, which had been advocated for many years, but which had never before been so completely realised. In two years they had established quite a liveable town.

In Venice the architects were carrying on the Venetian tradition; the new work was very good and looked like the old. The building operations on the islands have developed immensely, the Lido being now a large suburb, and structures were arising even on the small islands. All round the Mediterranean, Professor Wilkinson

came across gum trees and pepper trees. He told some English people in Mycenæ that what they saw before them was just like Australian sunshine—the same air, the same vegetation and the same lack of water. In Athens he found men engaged in putting back the columns of the Parthenon which had been lying in pieces round the edifice. The work was being done with skill and judgment under the direction of an able archæologist. Important discoveries had been recently made by archæologists in Mycenæ; and much light had been thrown on the early Cretan civilisation by the remarkable discoveries by Sir Arthur Evans. On the subject of colour, Professor Wilkinson

said it was receiving much more attention than was paid to it twenty years ago. There was a growing appreciation of its importance, particularly in its relation to interiors. Of the different schools he visited, he was most impressed with the technical school at Stockholm, an immense place, where the craft-work was excellent. Referring to the Exhibition of Decorative Arts in Paris and the Empire Exhibition at Wembley, he remarked that the former demonstrated the wisdom of having exhibitions right in the city. It was held in the heart of Paris, and unlike other exhibitions on a large scale, it was a financial as well as an artistic success.

NEWS AND NOTES

The annual conference of the Australian Institute of Architects will be held at Canberra on July 27th.

Mr. B. J. Waterhouse will attend the International Town Planning Conference to be held in Vienna in August.

Mr. Sydney Jackman, the well-known Adelaide architect, was a recent visitor to Sydney. He recently completed the plans for the re-building of the Adelaide Railway Station, which will cost £850,000.

THE NEXT EXHIBITION

Arrangements are being made here to hold an exhibition of the work of the students of the Architectural Association's School of Architecture, London. It is hoped that the work of the students of the two Schools of Architecture here will be included in the collection.

NEW ASSOCIATE

Mr. Walter Tapper, a pupil of Bodley, who has made his reputation as a church architect, is one of the new associates of the Royal Academy.

GIFTS TO THE LIBRARY

A set of engravings of the drawings made by Peroli, from the painting on the ceiling of the Sistine Chapel at the Vatican, Rome, by Michael Angelo, has been presented to the library of the Institute by Mr. C. Campbell Lloyd. The first and second series of "Nash's Mansions of England in Old Time" have been donated by Mr. James Thompson of Ludstone Hall, Claverley, near Wolverhampton.

DERWENT WOOD

The late F. Derwent Wood, R.A., carried out several sculptural works in connection with important buildings, notably the group called The Arts for the Kelvinside Art Gallery, Glasgow, and four of the "Industries" for the Mercantile Buildings, Glasgow. He married Florence Schmidt, the Australian singer, and was a friend of a number of Australian artists in London. He modelled the head of Bess Norris, which was recently placed in the Tate Gallery, and he did a fine bust of Tom Roberts. The bust of Mr. W. M. Hughes, which was presented to the Sydney Gallery by Mr. Ernest Watt, was from his studio. He invariably attended the annual dinner of Australian artists, which was once a regular fixture in London.

MANLY TOWN HALL

At a meeting of the Manly Council held in June, it was decided to call for competitive designs for a new Town Hall. The sub-committee's report, which embodied the following recommendations, was adopted:

(a) The erection of a theatre within the Town Hall to seat 2,000 people, and fitted in the most up-to-date manner.

(b) Provision for Council Chambers, with accommodation sufficiently large to provide seating for a gathering of 200.

(c) Adequate office space for the Electricity Department, including a showroom, the Town Clerk's, the Engineer's, and the Health Inspector's departments.

(d) That the advice of the Art and Historical Collection Committee be sought by the sub-committee to find out the space and character of a room required for an Art Gallery. The Art Gallery will be the first suburban one to be established in the Commonwealth. The committee has already got together a representative collection of Australian works.

THE BRITISH CONFERENCE

The following circular has been received from the Secretary, R.I.B.A., regarding the British Archi-

itects' Conference, 1926: In view of the General Strike in Great Britain it has been necessary to postpone the British Architects' Conference, which was to have taken place on June 14th to 19th, 1926. All the arrangements made for those dates have been cancelled. I shall be much obliged if you will kindly take steps to bring this information to the knowledge of your Members.

Faithfully yours,

(Sgd.) IAN MacALLISTER, Sec.

STUDENTS' CLUB

THE Sydney Technical College Architectural, which had existed for several years, but passed out last year, was revived under a new constitution at a meeting held on June 24th. The chairman, Mr. Frank G. Costello, remarked that if the club was to be a success it should be connected with the students of the college. They relied on a continued interest from ex-students, and indeed, from all members of the architectural profession; but it was only to be expected that after leaving the college, men would link up with the Institute, and that body should receive primary attention. The meeting formally adopted the constitution drawn up by the organising committee, which consisted of Messrs. Costello (chairman) Rudder (secretary), Cresswell, Barnard, Fitzgerald and Barbour. The following officers were elected: President, Mr. Frank G.

Costello; Hon. Secretary, Mr. G. MacDonnell; Hon. Treasurer, Mr. Brackenreg; Committee, Messrs. Charles J. Croswell, W. Goode-Smith, S. Archer, Carr and Allars.

The objects of the club are: to promote good fellowship amongst members by arranging social functions and advancing the interests of the club; to discuss matters affecting students and adjust them as far as possible; to co-operate with architectural and other bodies, with the object of furthering students' interests, and to take over the management, as far as possible, of the year book. The committee hopes to achieve these objects by arranging short talks to be given in the studio by members of the profession on subjects not generally covered in regular lectures, and by competitions in architectural and allied subjects.

A SHIP MODEL

WHILE he was working in an architect's office in San Francisco, Mr. Charles N. Hirst found that ship models were a popular form of ornament in the United States. They occupied niches in the walls and sometimes took the place of a clock on the mantelpieces. Born in Balmain, Mr. Hirst was always interested in shipping craft, and while a member of the Drummoyne Park Skiff Club, he had made several 18 inch models of racing yachts. At the annual exhibition of the Institute, a good deal of attention was drawn to his model of "Santa Maria," the vessel in which Columbus discovered America. He was assisted in his researches by

Chatterton's book on ship models, and a plan of the vessel which appeared in an article in the Ladies' Home Journal. All the tools he used in the construction of the model were a small plane, a chisel, a fret saw, and a screw driver; all the parts being joined by small rivets. The ropes and tackle were made from fishing lines, white beads serving for the blocks. The model was completed in five weeks. Models of historic vessels are rather rare in Australia, the only other one that comes to mind is that of Cook's "Endeavour," in the Melbourne Gallery, which was made by Norman Lindsay.



Process block by Bacon and Co. Ltd.

GREEN DOOR.

Design for doorway of Mrs. Bertram Stevens' house at Lindfield. The space enclosed by the outer arch is yellow, also the flanking piers. The main walls are cream and the door is a bluish green.

Architect, John D. Moore.

Cazneaux Photograph.



THE COURTYARD GARDEN.

Number 1, Rose Bay Avenue, Sydney. The bagged walls are a pinkish yellow, shutters and balcony woodwork are blue. The house is designed by John D. Moore and Leslie Wilkinson.

Hinton Witts Photograph.



THE GATE IN THE WALL.

"Coreen," Heyington Place, Toorak, the residence of Mr. W. A. Love. This graceful gateway with a semi-circular bracketed arch recalls the doorways of the Renaissance. An interesting use of roughcast, brick and iron.

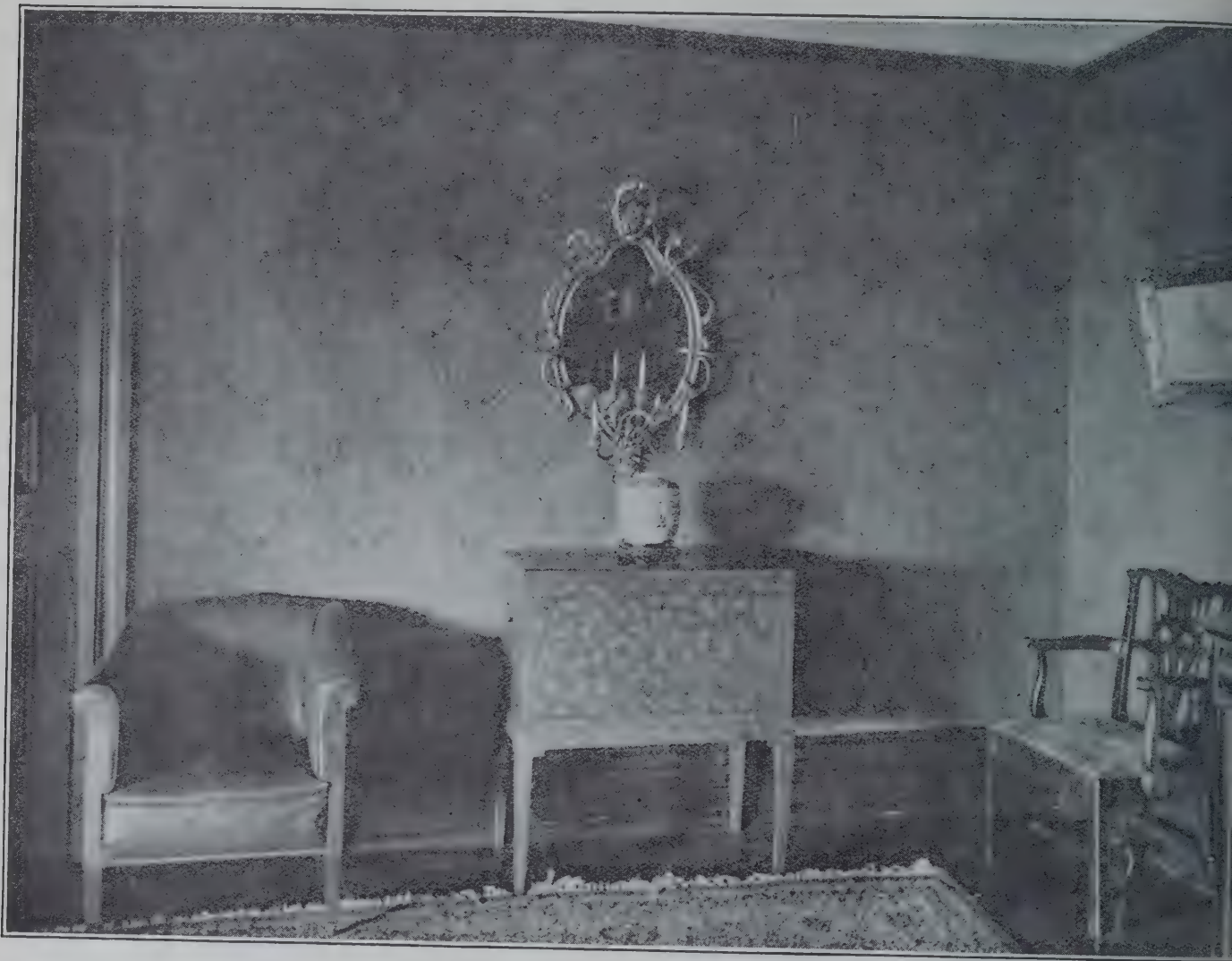
Adamson Photos.



COLONIAL DOORWAY.

The entrance of "Sunflower," Tyalla Road, Melbourne. The original brickwork a few feet from the base has been given a patina of faint pink. The fanlight is early colonial in character, and the arch of the doorway is flanked by two wall lanterns.

Adamson Photograph.

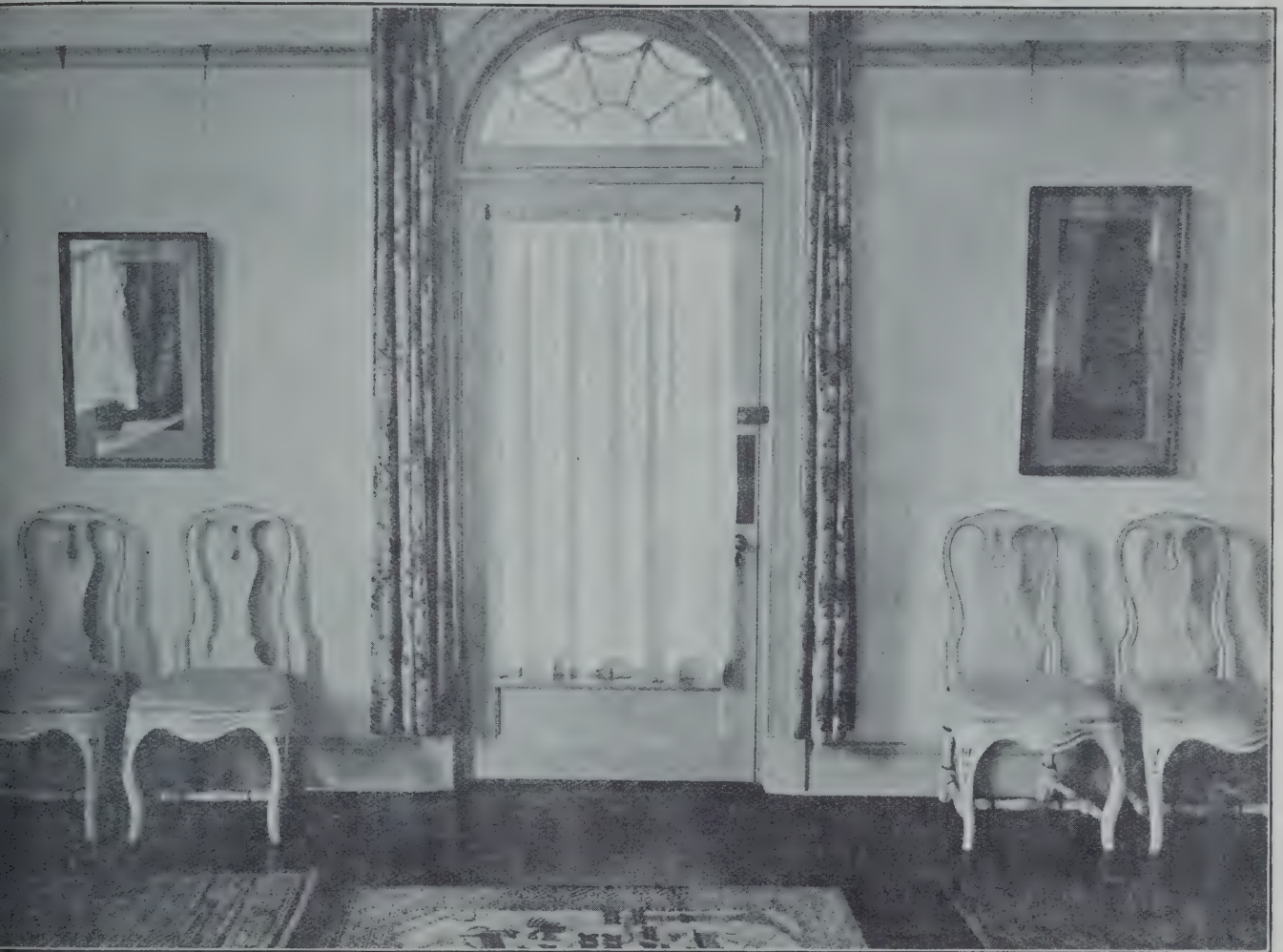


THE GOLD CABINET.

A harmony of golds. There is a Chinese chest of gold and black lacquer, and above it a Georgian mirror, gilt framed. A famille rose jar occupies the pivotal point of the study. An oil painting by Elioth Gruner hangs above the Chippendale chair on the right. The walls are of old gold.

From the home of Mr. and Mrs. Walter Brunton, "Mayrah," Bellevue Hill, Sydney.

Cazneaux Photograph.

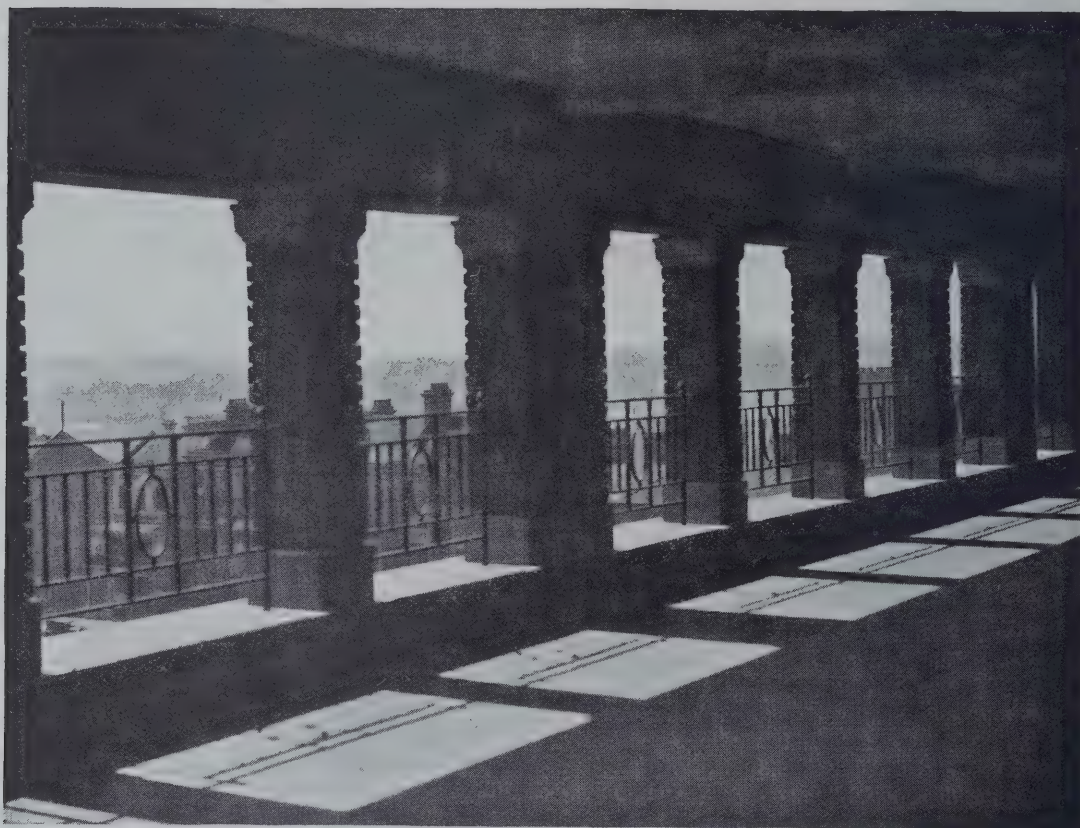


THE SWEDISH CHAIRS.

Flanking this Georgian door, Swedish rococo chairs throw graceful skeleton shadows on the ivory walls, and fall into a delicate harmony with the gold and rose of the chintz over-curtains. There are two Chinese paintings on silk, and Chinese rugs on the jarrah floor complete a graceful ensemble.

From the home of Professor E. G. Waterhouse, Eryldene, Gordon, New South Wales.

Cazneaux Photos.



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Y.W.C.A. BUILDINGS, LIVERPOOL ST., SYDNEY.

Architects—Waterhouse and Lake.

THE Y.W.C.A. BUILDINGS, SYDNEY

SYDNEY is now a city of just over 1,000,000 people; and a large new building to serve as the Headquarters of the Young Women's Christian Association has very recently been erected to enable the wider scope to be given to the wonderful activities of this world-wide organisation, amongst our fast increasing population. This new building, situated at the corner of Liverpool and Commonwealth Streets, facing Hyde Park, covers an area of 10,500 sq. ft., and rises 130ft. above the pavement at the Commonwealth Street entrance. The main entrance is in Liverpool Street, and faces North.

The History of the Association's activities in Sydney dates from the early part of 1880, when a meeting of ladies was convened to consider the formation of a "Young Women's Christian Asso-

ciation and Home." This meeting had been called in response to a request from the World's Y.W.C.A., that a branch be formed in Sydney in connection with the parent Society in London, founded in 1855.

It was decided to found a Y.W.C.A. in Sydney and to combine the two principal objects of such an association in one building, namely: a home, where board and lodging could be supplied, and rooms in which classes and meetings could be held, and a library formed.

A suitable building, "Loma House," for this newly formed association was found in 1881 in Wynyard Square, containing twelve rooms, besides kitchens. The Association remained in this building until 1893, when the increased activities necessitated a move being made. The next Head-

quarters were at a house in Phillip Street, where the Association carried out its combined programme of general and hostel work for seven years.

By 1901, the Association realised that a building of its own was necessary, and by the acts of generous citizens, a Building Fund crept up, and a site was secured in Castlereagh Street, between Park and Market Streets, at a cost of £5,000. The foundation stone of this building was laid by Lady Rawson, on 13th November, 1902, and on the afternoon of 7th September, 1903, the building was formally opened by His Excellency Sir Harry Rawson, then Governor of this State.

This new building seemed to fulfil every need, at the time, but presently it was found so inadequate that a building campaign for larger premises was organised in 1910 and 1912.

In the year 1913 an opportunity arose to secure a site in Liverpool Street, opposite Hyde Park, and it is this site upon which the present new large building has been erected.

At this time the Old Georgian Houses, known as "Lyon's Terrace," stood upon the site, and these were used as the headquarters of the Association

until their demolition in 1923, when the Association moved to temporary premises awaiting the erection of the new building.

A competition for plans of this proposed new building was arranged in conjunction with the Institute of Architects, and fifteen sets of drawings were received from leading city architects. The plans accepted were those of Messrs. Waterhouse & Lake, Architects and Consulting Engineers, of this City; the Adjudicator being Mr. G. H. Godsell, President of the Board of Architects of N.S.W., and ex-President of the Institute of Architects, N.S.W.

On the evacuation of "Lyon's Terrace," demolition began in 1923 and the new building was commenced in December, 1924.

After many months of excavating to provide for the large Basement Area, the building was sufficiently advanced to allow the foundation stone to be placed by Her Excellency Lady Forster, the wife of the Governor-General, on 18th June, 1925.

On 5th May, 1926, the official opening took place, the ceremony being performed by Her Excellency Lady Stonehaven, wife of the present Governor-General of Australia.

A DETAILED DESCRIPTION OF THE BUILDING

The study of the problem involved a solution of various requirements for a building devoted to this particular purpose. A building was required of adequate proportions, with a simple and direct arrangement of plan, with independence in the use of various rooms, at the same time permitting the use of the entire building without confusion upon special occasions, sound, but economical, construction throughout and durable but inexpensive interior finish and giving a simple but dignified exterior expressive of purpose, and with a character in keeping with the beautiful natural open space of Parkland over which the building looks.

The dimensions of the site are 80ft. along the north or Liverpool Street front, and 130 feet along the west or Commonwealth Street front. There is quite a considerable fall between the North and South boundary lines at pavement level.

The *Basement* of the building contains the Cafeteria, where 184 people can be seated. The kitchen contains the most up-to-date equipment, being well lighted by a large lantern at the bottom of a valuable Light Area on the Eastern side of the building.

The Cafeteria can be reached by lift from the Commonwealth Street entrance or by stairs leading from the entrance lobby in Liverpool Street.

In the Basement is situated a large Gymnasium covering an area of 2,300 sq. ft., with a ceiling height of 20 feet.

Below the Main Basement, in a *Sub-Basement*, are the Dressing Rooms, fitted with extensive locker accommodation, lavatories, showers, and special storage space is provided for Baggage and Property, also a Bulk Store and Boiler Room.

The depth of the sub-basement below the Liverpool Street pavement is 30 feet.

The *Ground Floor* is reached by steps leading from the large Entrance Lobby with Grille over, and contains the Entrance Vestibule, Lounge, Library Alcove, Retiring Rooms, Telephone Bureau, Dressing Rooms, Kitchenette, and off the Main Lounge is the Ante-Hall, leading into the Main Hall, a lofty area of 2,200 sq. ft., with Stage and a Gallery. The total Seating Capacity is 323, exclusive of the Gallery—the Hall is lighted by natural lighting from a Southern Light Area and Commonwealth Street.



Process blocks by Bacon and Co. Ltd.

THE Y.W.C.A. BUILDINGS IN COURSE OF
ERECTION.

Photograph taken on September 7th, 1925.



Process blocks by Bacon and Co. Ltd.

THE Y.W.C.A. BUILDINGS.

This photograph was taken a few days before the official opening on the fifth of May, 1926.

The stage of the Hall covers an area of 385 sq. ft., exclusive of the area of the main body of the Hall, and at the rear are situated the Dressing Rooms and a Kitchenette. The Hall can be reached through large open doorways from the Main Lounge, or from the Commonwealth Street entrance, by a special stairway, thus allowing the sealing off of the Hall from the Association in the event of the Hall being leased to outside bodies.

Owing to the difference between the Ground Floor level and Pavement level and by arrangement of the depth of Lobby, provision was made for four (4) shops, two with projecting awnings on either side of the Main Liverpool Street Entrance—cellars are provided beneath each shop, these extending almost to Cafeteria floor level below the Pavement.

The *Mezzanine Floor*, the front portion of which has large circular headed windows leading on to Balconettes along the Liverpool Street Front, contains the Staff Offices, Strong Room, Committee Rooms, etc., and a Gallery Landing looking on to the Main Lounge, with a ceiling height of 25 ft. above ground floor. Entrance to the Gallery of the Hall can be made from this Mezzanine Floor, besides by Stairs from the Hall.

The *First Floor* contains Club and Class Rooms, Lounge, Reading and Writing Rooms, Toilet, Dressing and Recreation Rooms and Servery. Situated on this floor is the Board Room, finished in maple, and with doors leading out on to an open court in the Light Area, which can be used as a Roof Garden. This also can be approached from the Interior Lounge, situated between the North and South wings of the building.

Second, Third and Fourth Floors are for the Hostel Accommodation, and the accommodation provided is for 60 persons, the total number of bedrooms being 45.

There are Lounges on each floor looking into the Eastern Light Area and forming a junction between the Northern and Southern wings. Lift

Entrances lead off these Lounges at each floor level.

The *Fifth or Roof Floor* contains a Roof Garden Court for Recreation and sport, and commands a fine view of the Harbour, looking across Hyde Park. At this level there are also a janitors' or custodians' apartments, with drying court.

Above the Roof rises the Pent House, containing Elevator Machinery, Water Tanks, etc.

The total floor area of the building amounts to approximately 42,000 sq. ft.

The Southern wing of the building is only completed at present as far as the Second Floor level, this section being brought up to correspond with the Northern wing at a later date.

A particular colour treatment of the building has been effected by the use of warm, red, attractive hand-made sandstock bricks with deeply raked joints.

Rustication of brickwork is resorted to with the brick front to Commonwealth Street with stand-stone dressings. A Sandstone Panel and Roundel are placed over the Commonwealth Street Entrance awning. The lowermost storey on the Liverpool Street front is faced with rusticated sandstone to Mezzanine Floor Height, where sandstone elliptical balconettes are supported by carved sandstone consols.

Carved Keystones form the head of the circular headed, deeply revealed, window openings at First Floor level, a continuous sandstone sill forming a string course, runs continuously along both fronts.

Above this level stone sills and dressings of the Colonettes at the Roof Garden level are used, while at First Floor level there is a long projecting rectangular stone balcony supported by carved consols—a smaller balcony also is placed at this level on the Commonwealth Street front.

The building externally is quasi-domestic in character, being thus expressive of its purpose as a building to cultivate the spirit of homeliness and group fellowship.

THE CONSTRUCTION AND EQUIPMENT OF THE BUILDING

CONSTRUCTION:

The area of the site upon which the building is erected is approximately 130 ft. by 80 ft., and the excavation of much material was necessary to provide for the large Basement and Sub-Basement of the Building.

The nature of the sub-soil was sound compact

shale, with a shallow overburden of clay—the soil conditions being regular throughout and capable of carrying 6 tons per sq. ft. The building is of fireproof construction throughout, being of composite framing of structural Steel and Reinforced Concrete internally, while the external walls are self-supporting, being composed of common bricks, with the outside facing composed of sand-

stock bricks in English Bond. In the external self-supporting walls a vertical Dampproof course of Seyssel natural rock asphalt was adopted below pavement level.

Floors throughout are of 6in. R. Concrete slabs, Stairs and Hall Gallery are also of R.C. construction.

Structural Steelwork construction was adopted up to First Floor level—this construction being better suited to the conditions imposed at this level, where long span girders over the Hall were necessary to carry all the upper floors of the Southern wing, the loads of these floors being carried down by R.C. Columns to the upper flanges of these large girders. Also, it was necessary for the whole internal area to the top of the building joining the North and South wings to be carried over the Main Vestibule Lounge at Ground Floor level to avoid column obstruction.

Thus Structural Steel was more suited to the conditions desired, and 250 tons was used for the internal framing between the Sub-Basement and 1st floor level.

The sections for the stanchions adopted were plated I-Sections in two lengths, splices occurring at ground floor levels. Base Plates were concentrically loaded throughout.

The large girders of the Hall and Vestibule Lounge were 38 feet span and of box type section, being composed of 3-24in. x 7½in. at 100 lbs. I-Sections, with 2-24in. x 8in. and 1-24in. x ½in. plates on both top and bottom flanges, with stiffening angles under the concentrated loads from the upper R.C. construction. The weight of each of these seven girders, of which five were over the Hall, was over 10 tons, and they were some of the heaviest Girders used in this City. Also very heavy girders of 38 feet span were placed over the Gymnasium in the Basement.

At the First Floor level, special large cap connection was provided for the long span girders to rest upon while at columns connecting directly with the upper Reinforced Concrete Column lengths, special caps, composed of 4-3in. x 3in. x ¾in. angle sections rivetted to the top of the stanchion were fitted to receive the R.C. framework and give good connection.

The arrangement of angles was made to suit the R.C. Column section, to be spliced to the internal steel framework, and splice bars were run through the column cap plates. Where the ends of the long span box type girders resting on Stanchion Caps extended to the Light Area, their ends were filled with mass concrete, and they were painted with waterproof paint to prevent corrosion, also

this was done with all steel stanchions in external walls to the light area.

In the cases where these girders rested on a self-supporting wall, the ends were plated, thus sealing the internal portion of the girder and cement grout was then run between the brickwork and steel ensuring full protection to these heavy girders, five of which carry heavy concentrated loads from upper floors at third points.

The Reinforced Concrete Framing extending from the first floor to the top of the building was composed of monolithic construction of beams, girders and slabs, with rectangular columns reinforced with Hooped Steel reinforcement and vertical longitudinal rods, varying in number and arrangement with the loads being carried. The mixture used for floor construction was 1:2:4, while 1:1½:3 mixture was adopted for columns.

The Rectangular Footings to the Steel Stanchions were of R.C. 1ft. 6in. thick, varying from 5ft. 6in. x 5ft. 6in. to 7ft. 3in. x 7ft. 3in. with the loads carried. They were reinforced top and bottom with a grillage mesh composed of ½in. steel reinforcing rods.

The Contractors' concrete mixing plant was placed in the Sub-Basement and the Hoist Tower was erected in one of the Passenger Lift Shafts, this being extended as each floor was poured.

The structure generally is an example of the rational combination of structural steel and reinforced concrete, each in its proper place.

EQUIPMENT.

There is provision for two Electric Elevators in the building, but only one has been installed to suit the present requirements.

The one at present installed is an "Express" Passenger Elevator manufactured by the Express Lift Company, of London, and the equipment consists of a car of Queensland Maple construction, 5ft. by 4ft. 6in., with a passenger capacity of 10 persons.

The total car travel is 95 odd feet, and the car can be operated by car switch or by automatic push button.

The Motor in the Pent House is of 12-B.H.P. capacity, running at 450/775-R.P.M. at 480 volts D.C.

The drive is of 33in. Vee type, and the car and balance weight guides are of 1½in. diameter, polished screw jointed steel.

The number of landings served by the elevators is 100, and the speed of the car is 150 ft. per

minute. The motors, control panels, floor setting devices, etc., are situated in the Pent House, in the central upper portion of the break in the Commonwealth Street front.

The Electrical Service is brought into the Switch-board Room below Pavement Level by underground mains and distributed to the various portions of the building by rising mains in the large elevator shafts, which have electrical installation distribution boards at platforms at the rear of the shafts at each floor level.

The nature of the Service is Direct Current supplied from the Municipal Council. Provision for Heating of the building is by large Electric Radiators connected at various Power Plug Points, and the efficient natural ventilation of the building provided by open position and suitable light areas is aided during hot weather by the use of electric fans at many points throughout the building.

The Hot Water Service is maintained by two "Ideal" Rustless Type Boilers, and two 150 gallon Copper Storage Cylinders, situated in the Sub-

Basement. Access for fuel supply being by means of a Bridge in the Southern Light Area to an entrance in Commonwealth Street.

Amongst other equipment is much apparatus devoted to cooking service—and the heating of prepared meals, while a "Kelvinator" is installed for cold storage purposes.

Over the Elevator Pent House are two large water tanks, providing an increased pressure for the water supply of the building.

The activities of the Association have now commenced at the new Headquarters for this State, and the cost involved in the building, including excavations, was £80,350, the Building Contractors being Messrs. Eastment & Clark.

This new building will soon become a landmark to many of our citizens, and in this rapid southerly extension of the city it will no doubt fill its appointed place in the corporate life of our city by being a centre for enlightened spiritual thinking and acting, and a training ground for intelligent and creative citizenship.



"With hey, ho, the wind and the rain."

Woodcut by R. McGrath.



DESIGN FOR RESIDENTIAL FLATS AT DARLINGHURST.

Exhibited at the recent Architects' Exhibition in Sydney.

Architects: Gilbert Hughes and Molony.

FACING WOOLCOT STREET



CHANDLER STREET

Process blocks by Bacon and Co. Ltd.

INSTITUTE OF ARCHITECTS OF N.S.W. ORDINARY GENERAL MEETING HELD JUNE, 1926

THE Ordinary General Meeting of the Institute for the month of June, 1926, was only a formal business meeting. The President, Professor A. S. Hook, was in the chair. Apologies were received from Messrs. A. W. Anderson, G. H. Godsell, L. C. McCredie and O. A. Beattie.

Minutes of previous meeting (4th May) were confirmed and signed.

The ballot for new members resulted in the election of Mr. George Mitchell and Mr. Allan Sydney Jones.

Notice of Motion for discussion at the General Meeting in July was given by Mrs. Taylor, as follows:—

"That, in view of the great disadvantage under which Master Builders are placed through some clients undertaking work beyond their financial compass, a clause be included in the contract with the Master Builder, securing him the full value of his contract, by the client placing the amount covering the contract into a Trust Account at an approved bank, from which the builder may draw percentages as at present stipulated by Architects' certificates for progress payments, and on completion of the contract when the Architect's final certificate is issued, that certificate to release to the builder the balance of the Trust Account referred to." This concluded the business of the meeting.

THE JOSELAND PRIZE

THE prize offered by Mr. Howard Joseland for the best collection of measured drawings, was awarded to Harry Foskett, of Messrs. McCredie & Anderson's office, a student of the School of Architecture, Sydney Technical College. Mr. Howard Joseland, as Chairman of the Exhibition Committee, reports that his examples showed a considerable amount of work and industry. The field book sketches, measurements and notes were the best submitted and would convey to any other draughtsman or Architect a faithful idea of the subject. The draughtsmanship was not so good as the pencil work and more care should be taken, especially in the perspective drawings of tracery and notably in that of the quadrant staircase.

David White King, University Student. Subject: *St. Stephens*, entailed a fair amount of work and intelligible setting out of the subject. Tracery not indicated quite clearly and regularly enough. The field notes good, almost equal to those which obtained the Prize.

Winsome A. Hall, University Student. Subject: *St. Paul's, Redfern*. Commended for tackling such a subject. Fairly well drawn out. The field notes and sketches on the right lines.

K. F. Geraud, Technical College student. Subject: *St. Andrews*. Very good pen drawings, the best submitted, but the work not deemed to sufficiently comply with the conditions. Field notes intelligible.

Ernest Maxwell Osborn, University student. Subject: University door. A good attempt, but need more practice in freehand. Much careful work in setting out and full size details. Tracery requires more understanding and care. Field notes altogether too rough and should be in book form. W. Beverley Suttor, University Student. Subject: University Door. Remarks as to last apply also to this work. The field notes would be useless to another draughtsman.

These last two students are on the right track, showing fair setting out and well drawn detail. Freehand is their weak point, but that can be improved with practice. The response in this competition is the best so far and any of the competitors may with perseverance become winners in the future; at the same time all the work is capable of considerable improvement, especially in freehand drawing of tracery.

Note.—The Acting Professor of Architecture at the Sydney University points out that Students E. M. Osborn and W. B. Suttor had had at the date of the opening of the Exhibition, only six weeks' training in Architecture; and that the drawings submitted were the first measured drawings ever made by them. In view of this report the Exhibition Committee considers the standard of the work remarkably good.

(Next year there is to be a second as well as a first Prize).

A STUDENT'S VISIT TO THE EXHIBITION
A CANDID COMMENT

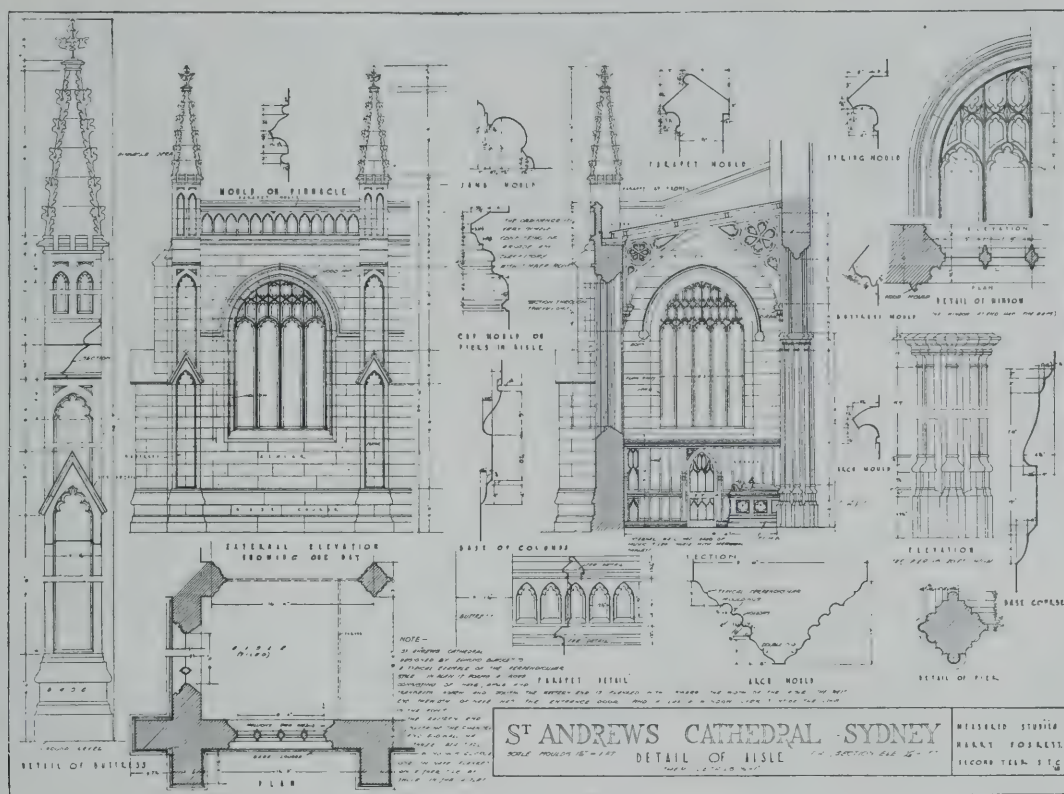
Though there were difficulties in the way owing to a vacation at the time, the initiation of the movement to arrange visits from various schools to the annual exhibition of the Institute was successful enough to warrant its repetition next year. Among the schools represented were the Sydney Technical College, King's School, Parramatta, Temple Junior Technical School,

Cleveland Street Intermediate High School, Hurstville Junior Technical School, Gardiner Road Junior Technical School, Marrickville Junior Technical School and the Domestic Science class of the Canterbury School. The students from the various schools were invited to give their impressions. How it appealed to a fifth year student may be judged from the following essay:—

ONE day recently, having an hour to spend whilst my Chief, a leading F.I.A. (or is it M.I.A.?) was "on a job," I decided to forsake the dreariness of the office and visit the Architects' Exhibition. Taking, therefore, the familiar way down Loftus Street I was soon at the Education Building, passing its magnificent backyard on the way, and entering the lift found myself deposited at the Exhibition Hall.

The custodian of the door provided we with a brochure (the pronunciation of that word is given with much variety), the front page of which is ornamented with a most extraordinary looking building. To an architect,

it seems to be the rear elevation of a cathedral with a few factories (for souls, I expect) attached. The name of the artist, of course, places it beyond criticism, except by students; but really, one wonders what on earth must a layman imagine it to represent? But, of course, the Institute must be economical and carry on tradition. Leading members of the profession contribute mildly interesting "leaders" on various topics not unconnected with Architecture; these are read, we rather fear, by very few outside the profession. In fact, one cannot but regret that more of the outside public cannot be somehow interested in the Exhibition. It is perhaps a fact, which Architects will not admit,



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ST. ANDREW'S CATHEDRAL, SYDNEY.

Measured Studies by Harry Foskett. Second year
S.T.C.

(Continued).

that the average person is very little interested in Architecture beyond mere house building, and only know the names of our leading architects by the vast builders' signs erected on our new banks and other buildings in progress. But we digress.

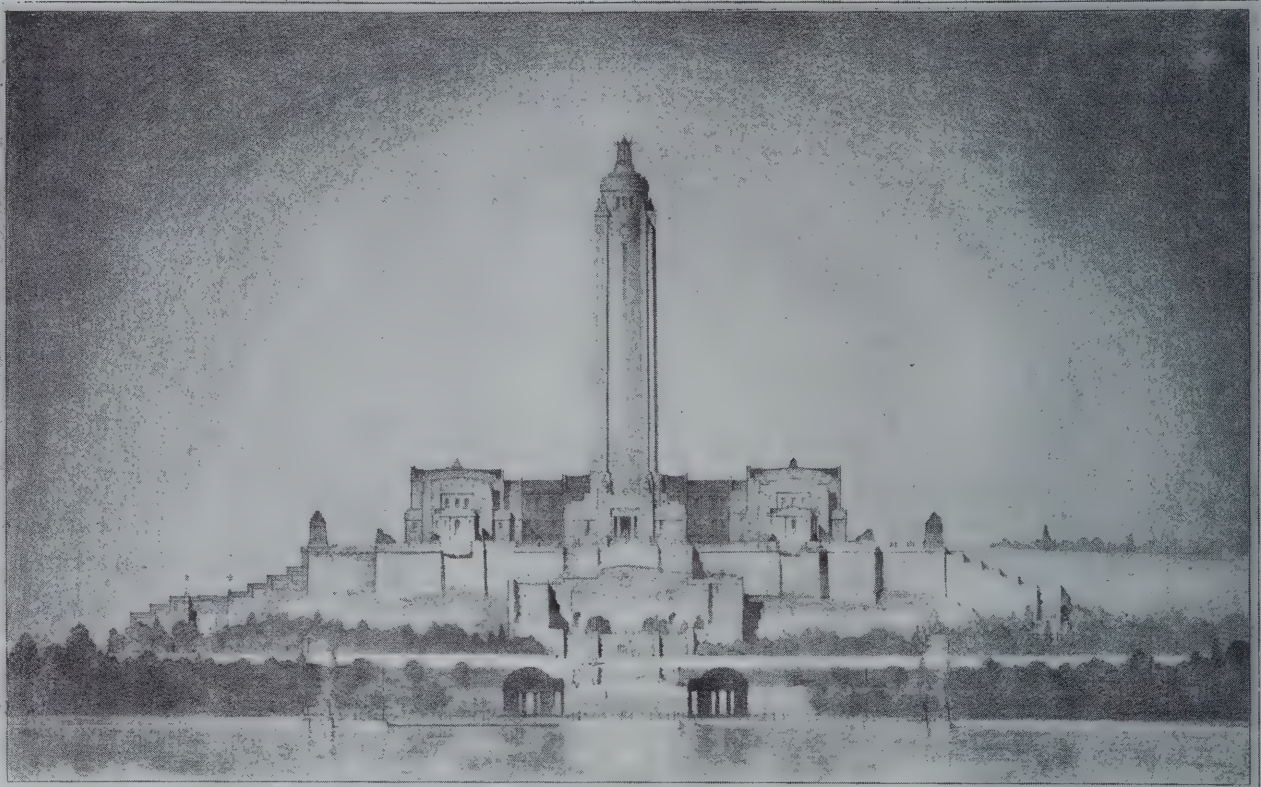
The Exhibition divides itself quite naturally according to the rooms—the large gallery being purely architectural, and the first gallery devoted to the allied arts. One would not need much knowledge of "period" work to appreciate the magnificent display of furniture, well worth more than one visit. Opposite the furniture a splendid collection of architectural books delights the heart of the keen student. Indeed, the visitor feels like the ancient mariners passing between *Scylla* and *Charybdis*. Entering the main gallery, one is pleased to observe that the drawings are hung with due regard to "Church and State" with Education in the form of a new high school well to the forefront. The perspectives, more sober generally than of recent years, show the many tall buildings that are helping to make our streets look narrower. The perspective of the new David Jones building turns one green with envy! The eye is caught by a very strong drawing of a new

newspaper office, done in oils. A mere student could not for a moment suggest that oil colour is a bad medium for architectural drawings; but looking at it, one thinks naturally of three good coats in addition to priming.

That the Institute has such a large army of M.'s.I.A. would scarce be known by the small number of exhibits. Why are the many large firms whose names are household words, entirely unrepresented? Is the production of rendered drawings and perspectives going out of date? or are the architects afraid of letting others see their magnificent conceptions? If so, can't the public see some working drawings and half inch details? By dint of much searching, one discovers, hid away in a little alcove, the Domestic Work of the year.

We wonder why? Most clients are interested in houses and their appointments, even Ideal Homes. If the domestic work was hung in the first gallery, it might mean more interest in architecture, and less in furniture. And first impressions, you know, are good ones!

And does not the annually rejuvenated poster at the entrance say "an exhibition of Architectural work?"



A NATIONAL WAR MUSEUM & MEMORIAL

NEAR THE NATIONAL GALLERY, SYDNEY

WAR MEMORIAL DESIGN.

By A. E. Barnard. Exhibited at the Institute of Architects' Exhibition, Sydney.

(Continued).

The students' work is there as usual, and helps to make the friends of the students very happy. The sketches are more abundant than usual and always seem to delight the majority. Indeed, it would seem to be one of the distinguishing traits of the cultured architects to delight in sketches. Let us be very grateful to those members of the Institute, who, by the offer of special prizes, endeavour to stimulate the student to activity in this direction.

The Exhibition is of very real significance in the life of the Institute, providing as it does an opportunity of bringing before the public the work of the Architects and the prevailing trend of design (I was nearly going to say fashions)—again, in such individualistic profession as Architecture, the exhibition does well to emphasize the unity of the profession; a unity, let it be whispered, often more honoured in the breach than the observance.

To the student the exhibition is perhaps of the greatest value. Here he can follow the developments in plan-

ning and design; developments that proceed slowly but surely. And I venture to say that he will find a great advance every year in design, especially in city facades. And, ever in domestic work, where he will see the "Georgian and whitewash", in imminent peril of being superseded by the "Spanish and whitewash!" The renderings are, also, a source of inspiration, providing him with hints to assist him in ruining the next sheet of "Whatmans."

One could not conclude these brief notes without a reference to the influence of the exhibition as a social instrument. Here brother Architects meet again on common ground, renewing friendships and memories of student days. Here also the underpaid draftsman meets his fellow and exchanges mutual commiseration. And even the student, heavy-eyed with long acquaintance with midnight oil, finds some small solace in criticising as harshly as possible, the work of every other Architect's office than that in which he spends his miserable existence.



DINING ROOM INTERIOR.

A dining-room containing some beautiful pieces of old furniture. A wooden sarcophagus from the Isle of Syke is standing underneath the mahogany side-board on the right.

Cazneaux Photograph.

SCHOLARSHIP WINNERS

THE Australian Medallions, and the Traveling Scholarships, each valued at £400, were awarded by the Board of Architects of New South Wales, in June, to Frederick Keith Manderson and Albert Edward Barnard respectively. The work of Benjamin Thomas Stone, School of Architecture, Sydney Technical College, was highly commended.

Mr. Manderson, who is 23 years of age, took the degree of Bachelor of Architecture at the School of Architecture at the University this year. He was educated at the Fort Street High School, and joined the School of Architecture in 1922, the thesis for his degree being "Cinema and Theatre Design in Australia." Besides designing, he is keenly interested in the structural side of architecture. He has made several designs in connection with the scheme for remodelling portions of Sydney. He is now engaged as a draughtsman in the office of Mr. Henry E. Budden.

Mr. Barnard, who is a diplomate of the School of Architecture, Sydney Technical College, is 24 years of age. He gained his preliminary training at the Auburn Junior Technical College, where he won several prizes and a scholarship. While he was an articled pupil in the office of Mr. Arthur B. Polin, he attended the night classes at the School of Architecture at the Technical College, where he was very successful. He was

awarded the Kemp Memorial Medal in 1923, and recently the diploma in architecture, with first-class honours. During the past 12 months he was employed as assistant to Mr. S. H. Buchanan, and is now engaged in the office of Messrs. H. E. Ross and Rowe. He has the privilege of practice, being registered by the Board of Architects. He is a member of the Institute of Architects of New South Wales and a member of the Royal Sanitary Institute, London. He wishes to express his appreciation of the help given by his employers, Mr. B. Hadley, and the staff of the school at the Technical College.

The design for "A National War Memorial and Museum," by Albert Barnard, which is reproduced, embodies the practical as well as the aesthetic side of architectural structures of a prosperous city. "The Museum," says its designer, "provides protection for exhibits similar to those of our own collection to be housed at Canberra, whilst the towering memorial would afford an excellent vantage point and be of the nature of the well-known Statute of Liberty, New York.

The whole scheme would be of considerable magnitude, embracing an ideal landing place for state ceremonial receptions, being set in a large reserve on the harbour's foreshore." The description of Mr. Manderson's example is given with the design.

THE CONVERSAZIONE

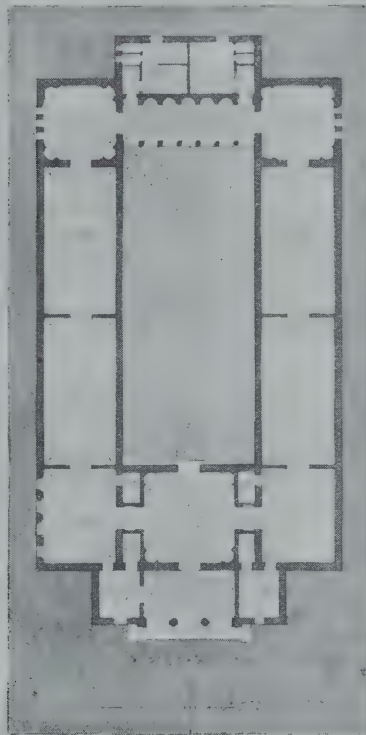
A GROUP of handsome women drooping their graceful heads over the weighty tomes of architecture from the Public Library; Professor Hook handing over the prize to the winner of the competition for measured drawings, which was done in the true presidential manner, were incidents that one vividly recalls in connection with the *Conversazione*.

The music which flowed through the long gallery at supper time, when the individual was merged in the ensemble; and one got an impression of groups and white walls in indefinable masses was another memory. This blending was due to the

beneficent power of music. If we were an emotional race we might create this effect ourselves; but we take our pleasures seriously, the motive of melody being necessary to restore the balance. Thanks are due to Miss Violet Stedman, who was accompanied by Mrs. J. Aubrey Kerr, to Mr. Clem Williams who was accompanied by Mrs. Carter, and to Mr. Mowat Carter for his solos on the violin and to Miss Francis Ross for her recitations. "It is soothing to hear this music," said a stray poet who had dropped in, "for the traffic of the world will jar on the morrow and the rhythmic murmur of the universe will be hushed."

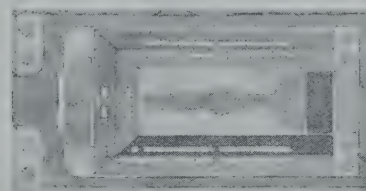


The main feature of this building is the central court. A path runs down the centre and round an ornamental Fountain to a loggia. The loggia would contain a sculptured figure.



The galleries flanking the central court would be devoted to pictures, the one at the far end being used as a print room. The design is suitable for the large country town.

*Frederick K. Mander-
son, designer.*



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DESIGN FOR AN ART GALLERY.



Elevation to the Street.

Process blocks by Bacon and Co. Ltd.

SKETCH DESIGN FOR PROPOSED CHURCH
OF ENGLAND, MANLY.

WINNING DESIGN.

Wright and Apperley, Architects.

ARCHITECTURE

AN AUSTRALIAN MONTHLY JOURNAL

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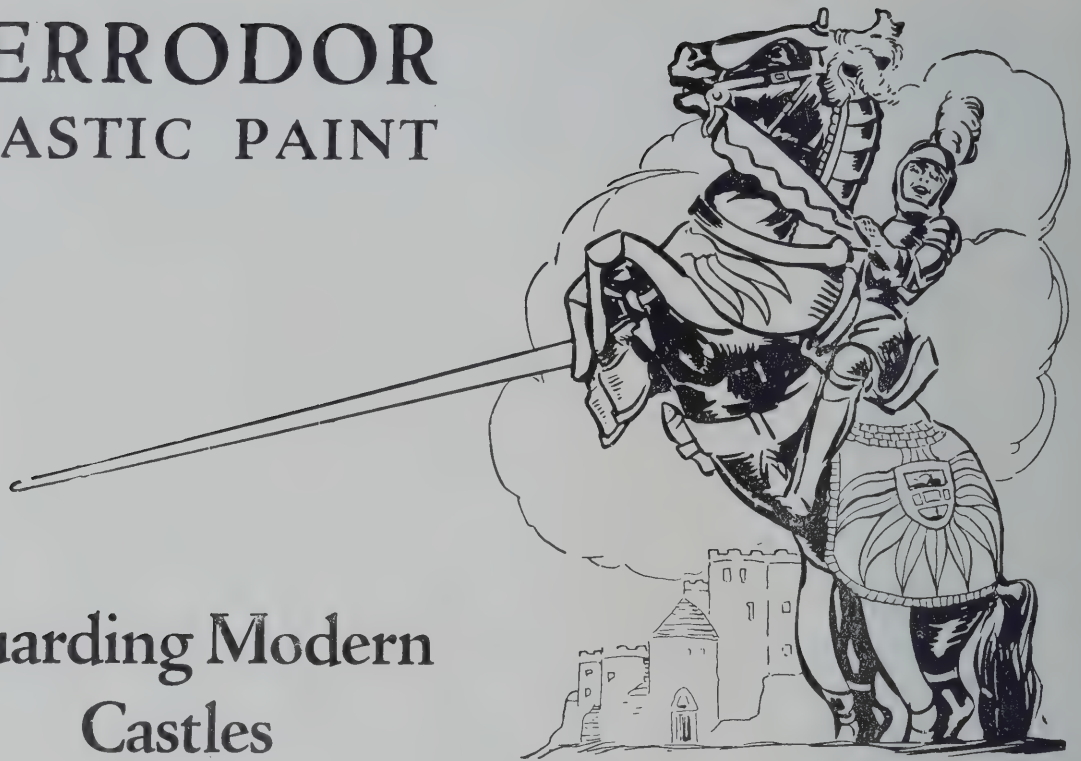


FIGURES ON THE CURZON TOMB
AT KEDDLESTON

By Sir Bertram MacKennal, R.A.

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ARCHITECTURE

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August, 1926

LEAGUE OF NATIONS BUILDING INTERNATIONAL COMPETITION

IN a letter, dated July 24th, the Secretary of the Prime Minister's Department notified the Secretary of the Institute of Architects of New South Wales that the Commonwealth Government had been advised that a competition for the selection of a plan for the erection of a League of Nations Building at Geneva would be opened on July 25th, 1926. He added that the Commonwealth Government had received only a limited number of documents pertaining to the conditions of the competition. The Government was of the opinion that the Institutes of Architects of the several States were the most convenient organisations through which Australian architects could be reached, and he was therefore forwarding twenty copies of the documents in question.

The League of Nations throws this competition open to architects, in order that the building may be designed not only to provide accommodation of the most modern and practical kind for all the organisations essential to the League's work, but also to symbolise in style and outline the pacific ideals of the twentieth century. The site on which this building is to be erected is a magnificent one; its highest part adjoins the Route de Lausanne, and it slopes gently, with lawns and shady avenues, to the shores of the Lake of Geneva. The grounds border the lake for more than forty metres, and a path (which can be widened) on the property makes an admirable walk by the lake-side, and has a marvellous view, which includes Mont Blanc. It is in surroundings of this magnificence and beauty that the League of Nations building is to be planned.

The following particulars are taken from the Programme and Rules issued in connection with the competition:—

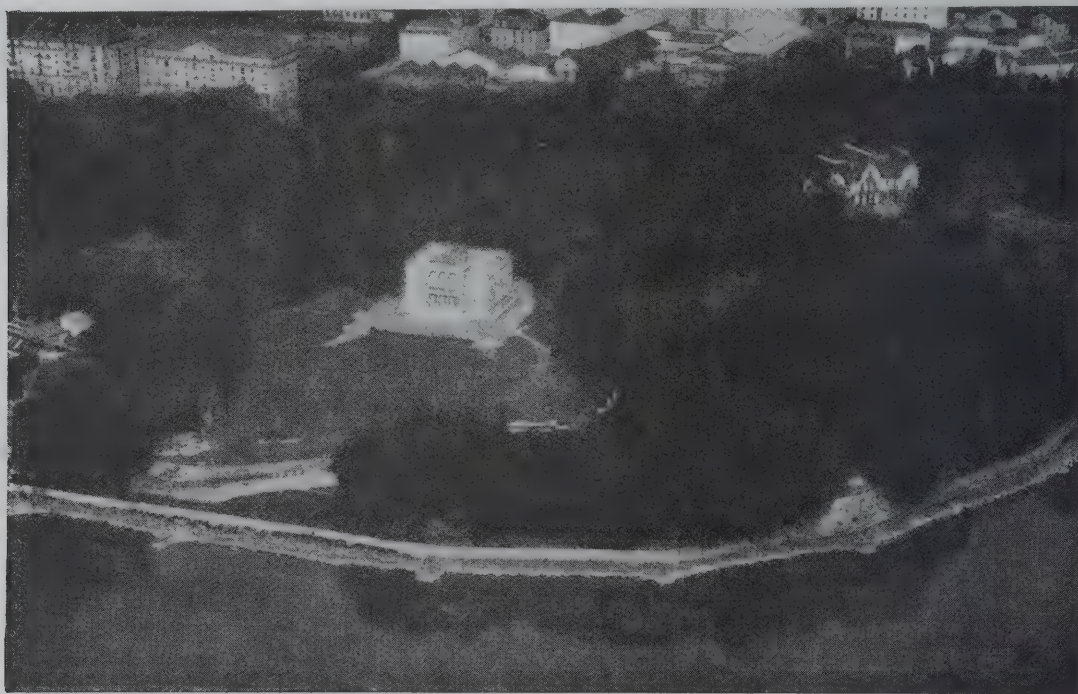
"The building which forms the subject of the competition is to house all the organs of the League of Nations in Geneva. It should be conceived in such a manner as to enable these bodies to carry out their work and to meet and deliberate easily and undisturbed in that quiet atmosphere in which it is desirable that international problems should be discussed. These organs are:

(a) *The Assembly*, which will use mainly the large hall for public meetings; the delegates of all the States Members of the League of Nations will meet there at regular intervals and hold sessions attended by a large number of persons.

(b) *The Council*, a much smaller body than the Assembly, consisting at present of ten members. It meets several times a year, sometimes in private, sometimes in public.

(c) *The Secretariat*, which centralises all the work of the League of Nations, acts as a permanent body, organises meetings and receives the delegates of all the international committees, the members of the international Press and all persons interested in the work of the League of Nations.

(d) *The International Labour Conference*, which meets periodically at all other times than the Assembly, and will sit in the hall mentioned in paragraph (a). All parts of the building, including the different services, should be readily accessible to all persons taking part or assisting in the work of the League or attending its meetings,



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Air Photograph of the Site. View from the Lake.

but, to ensure order and to avoid confusion, it is essential that the delegates of States and the staff of the Secretariat should have entrances separate from those of the Press and the public and should be able to reach their respective places without difficulty."

The orientation of the building is left to the discretion of competitors. Their attention is drawn, however, to the very cold winds which blow in winter from the north-east and to the beauty of the view across the lake towards Mont Blanc. Competitors must propose the system of foundation which, in their opinion, is most suitable to the character of the soil. For this purpose, they are supplied with a drawing of a geological section of the ground, together with the results of the borings made. If the foundations do not reach solid bottom, competitors can make use, for

example, of a reinforced concrete platform. In this case, the average permissible weight on the bottom of the platform is roughly a pressure of 0.75 kilogram per square centimetre. The League of Nations building will consist of two principal parts, which may be arranged either in separate buildings connected by galleries or colonades, or in a single building supplied with lobbies, galleries and exits. These two parts are chiefly intended: The first for the main Assembly Hall, for the Council Rooms, and for their dependencies. The second, for the use of the Secretariat. In view of the declivity of the soil, these two parts of the building must of necessity be erected on a basement to be used for various auxiliary services, and secondarily, so constructed as to place the ground floors of the two parts of the building as far as possible on the same level.

THE SECRETARIAT

The Secretariat, which is the permanent organ of the League of Nations and is directed by the Secretary-General, at present consists of 480 officials. The Secretariat is responsible for the organisation of the meetings of the Assembly, of the Council and of the Committees; it undertakes all the preparatory work for these meetings, makes preliminary studies and carries out the

resolutions and decisions adopted by these different organs of the League.

The Secretariat is divided into a certain number of sections and administrative departments. The principal Sections are as follows:

(a) *Offices of the Secretary-General and the Under Secretaries-General.*—The Secretary-General is responsible for the direction of the



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Air Photograph of the Site, taken obliquely.

Secretariat as a whole. He is assisted by a Deputy Secretary-General and by two or three Under Secretaries-General, one of whom is in charge of internal administration.

(b) *International Bureaux*.—This Section deals with the relations of the League of Nations with all the international bureaux placed under the authority of the League in virtue of Article 24 of the Covenant. It also acts as the Secretariat of the International Committee on Intellectual Co-operation.

(c) *Political Section*.—This Section studies all international political problems with which the League of Nations may have to deal.

(d) *Office of the Legal Adviser*.—This Office gives opinions on the legal aspect of all questions dealt with by the League; it is also responsible for the registration and publication of treaties.

(e) *Administrative Commissions and Minorities Questions Section*.—This Section deals with administrative questions concerning the Saar Basin, the Free City of Danzig, etc., and with the protection of minorities in the countries in which

there is an international regime for such protection.

(f) *Disarmament Section*.—This Section deals with all questions concerning security and disarmament, the supervision of the international trade in arms and the private manufacture of arms, and the publication of the *Armaments Year-Book*.

(g) *Economic and Financial Section*.—This Section constitutes the Secretariat of the Financial Committee and of the Economic Committee, which act as technical advisory bodies to the Council and Assembly for all financial and economic questions. At the same time it periodically issues publications on these questions.

(h) *Health Section*.—This Section constitutes the Secretariat of the Health Committee, which gives the Council and the Assembly of the League technical opinions on all questions relating to public health. It is responsible for establishing relations between the health services of the different countries, for centralising information concerning these questions, and for promoting the conclusion of international agreements relating to public health.

(i) *Information Section*.—This Section is responsible for relations with the Press, prepares communiques and notes for the use of journalists, is responsible for keeping in touch with the organisations engaging in propaganda in favour of the League of Nations, and keeps the Secretariat informed of the state of public opinion with regard to the League of Nations.

(j) *Mandates Section*.—This Section acts as the Secretariat of the Mandates Commission, which has to examine the annual reports of the mandatory Powers; it is also responsible for all the preparatory work required by the Council and the Assembly in regard to questions concerning the mandated territories.

(k) *Social Questions and Opium Traffic Section*.—This Section deals with important social questions such as the protection and welfare of children, the suppression of the traffic in women and children, the suppression of obscene publications, the suppression of the illicit trade in opium, etc.

(l) *Communications and Transit Section*.—This Section acts as the Secretariat of the Advisory Committee for Communications and Transit, prepares the international conference on transit questions, follows the application of the conventions concluded by these conferences, etc.

(m) *Financial Administration*.—The Treasurer of the League is responsible for the direction of financial operations and for drawing up the budget and supervising the internal control and accountancy services.

(n) *Latin-American Office*.—This Office is specially responsible for the liaison between the Secretariat and the Republics of Latin America. The principal administrative departments are the following:—

(a) *Establishment Office*.—This is responsible for making all material arrangements for meetings of the Assembly, the Council, the Committees, etc., and for all arrangements regarding buildings, supplies, stores, etc., and all questions concerning the staff of the lower grades.

(b) *Precis-Writing, Publication and Sales Department*.—This Department is responsible for the drafting and publication of Minutes and for the printing and sale of the documents, pamphlets, etc., published by the League of Nations.

(c) *Interpreters and Translators' Department*.—This Department, which is divided into an English branch and a French branch, is responsible for the translation of all the documents published by the Secretariat in the two official languages. It also supplies interpreters for the Assembly, Council, Conferences, Committees, etc.

(d) *Registry*.—This Department is responsible for the receipt, registration and safe-keeping of the documents of the League of Nations.

(e) *Distribution*.—This Department is responsible for sending all official documents to the States Members of the League. It also distributes the documents necessary for the work of the Assembly, the Council, the Committees, etc.

(f) *Pool of Shorthand-typists*.—This Department, which comprises from sixty to eighty shorthand-typists, does the shorthand and typing work of the Secretariat.

(g) *Duplicating Department*.—This Department is responsible for reproducing the official documents of the League before their distribution.

(h) *Library*.—The Library is intended for the use of the delegates, the officials of the Secretariat, and all persons engaged in the study of international questions.

THE ASSEMBLY HALL

The Assembly Hall, the shape of which is left to competitors, should be capable of holding a large audience. It will be situated on the ground floor. The acoustics of the Assembly Hall should be as perfect as possible, and it should be spacious, well ventilated, and well lit. In view of its purpose, careful attention should be given to its proportions. It should be arranged as follows: a portion in the centre, in tiers, or arranged on an inclined plan, will be reserved for 400 delegates, who should be able to sit in comfort, two by two, at their desks. Dominating the part reserved for

delegates, and facing them, will be a dais for the President, the Secretary-General, and an interpreter. On either side of these three seats will be members of the Secretariat, who will be able to communicate with the President and the Secretary-General. In front of the presidential dais, and below it, will be a platform on which speakers will stand and to which the delegates will come to vote. Close to the speaker will be seated, when necessary, the representatives of Committees and the interpreters. This platform should be readily accessible from the delegates' part of the hall. The delegates should be able to go up

and come down by a double staircase when called upon to speak or vote. At the foot of this platform there will be tables or desks for the use of precis-writers and verbatim reporters (about ten persons), who should have easy access to the rooms outside the Assembly Hall behind the presidential dais.

A. *Official Platform* (42).—This platform should be on the same level as the upper rows of delegates' seats. It will be subdivided into: (a) four main sections, with desks, placed symmetrically in relation to the presidential dais. The two sections nearest to the dais will be reserved for members of the Secretariat (50 on each side); the other two will be occupied by secretaries of delegations (150 on each side); (b) two enclosures for friends of the President and of the Secretary-General; (c) a large diplomatic enclosure (this may be at a higher level, and must hold at least 200 persons).

B. *Press Gallery* (42).—This will be situated over the platform described above, and should be so arranged as to enable Press representatives (600) to take notes in comfort, and to move about or leave the chamber without difficulty during the meetings.

C. *Public Galleries* (42).—The public gallery or galleries, to accommodate about 1,000 persons, will be placed above the Press gallery. The public should be able to follow the debates without difficulty.

All the galleries should open out into spacious and convenient corridors.

The cost of construction, including the architect's fees, should in no case exceed the total sum of 13 million Swiss francs. This price must

include all general installations (heating, electricity, cold and hot water, lifts, ventilators, etc.). Full particulars regarding the competition are given in ten documents, which include a table showing all the rooms required, and a specimen estimate with list of prices. In addition, there is a list of the designs and documents to be furnished by competitors and the rules of the competitions.

The competition will be open until January 25th, 1927, the date fixed for the dispatch of plans from Sydney. The sum of 165,000 Swiss francs will be placed at the Jury's disposal for awards in respect of those designs which it considers the best. The prizes and supplementary awards will be as follows:

	Swiss francs.
First prize	30,000.—
Second prize A	25,000.—
Second prize B	25,000.—
Third prize	20,000.—
Fourth and fifth prizes ... (each)	15,000.—
Sixth and seventh prizes .. (each)	5,000.—

The Jury will also have at its disposal 25,000 Swiss francs to be distributed in the form of supplementary awards, of not less than 2,500 Swiss francs each, to the best designs which have not been awarded prizes.

The Jury consists of nine members, M. Victor Horta (Brussels) being President. The other members are Sir John J. Burnet (London), M. H. P. Berlage (The Hague), M. Charles Gato (Madrid), M. Joseph Hoffmann (Vienna), M. Charles Lemaesquier (Paris), M. Karl Moser (Zurich), M. Attilo Muggia (Bologna), and M. Ivan Tengbom (Stockholm).

AN EVERLASTING PAINT FOR INTERIOR DECORATION

It should be interesting for architects and interior decorators to note that a paint such a "Ripolin" has proved so eminently satisfactory for the motor cars, which are exposed to all kinds of weather, that it should be practically everlasting. Here is a letter recently received from Messrs. Ripolin, Ltd., of London:—

Chesham Bois Place,
Chesham Bois,
Bucks.

March 6th, 1926.

Dear Sirs,

Will you kindly let me have your card of shades of 'Ripolin' paint for motor car bodies. I want a good grey colour with a warm touch in it.

You may remember that I had a Rolls painted with 'Ripolin' in 1923 by the Wilton Carriage

Company at Croydon, and you kindly took a good deal of trouble to see that the paint was what was required.

The car has now gone 45,000 miles, and is going again to the same carriage builders to have a re-paint with your paint. It has been a very satisfactory job, and there has not been even a suspicion of cracking off in any place. When this job comes along about April I will further communicate with you about the paint to be used.

What amount of paint is required for a saloon body, including with wings, and what price are your brushes?

Yours faithfully,
(Signed) C. B. C.

Messrs. Ripolin, Ltd.,
3, Drury Lane,
LONDON, W.C. 2.

ST. JOHN'S, CAMDEN

THERE seems to be some uncertainty as to who was the actual architect of St. John's, Camden. The Rev. Cecil J. King, M.A., the Rector of the Church, has been good enough to supply the information, which is given in a file of "The Sydney Guardian," 1848-9. It is stated there that the plan of the walls was supplied by the Colonial Architect, W. H. Lewis, in 1840, the roof being designed by Le Fevre. This does not make the position quite clean, and I was unable to get any information on the subject at the Government Architect's office. Mr. King states that the organ gallery was designed in 1862 by E. T. Blacket, who also designed the Eastern window. He adds that after it was decided to enlarge the church, a design was sent out by Sir Gilbert Scott, which however was not used. In a short history of the church, written by Mr. King, in connection with the 70th anniversary of the consecration of the church by Bishop Broughton, on June 7th, 1849, some interesting facts are given regarding the construction of this beautiful edifice. The following description of its appearance about the time it was consecrated, is quoted from "The Sydney Guardian," August 1st, 1849:—

"We furnish, according to promise, a few more particulars respecting the architectural features of the handsome structure. It consists of a nave, chancel, and western tower and spire, all, including the spire, being built of brick, and at some future time to be covered with plaster. The spire is already stuccoed. The windows, which are of the 'decorated period,' are exceedingly well wrought in the stone procured from the neighbourhood, which is of a greyer colour and closer grain, though softer in the cutting, than the sandstone around Sydney. The flagging of the interior is the very best piece of work of the kind in the country. The roof is open, with tie beams and spandrels. The windows are filled with fancy patterns of octagon and square glass, the former being ground, the latter coloured, set in copper frames. The altar rail is carved with cinquefoil pointed arches, on small shafts, with caps, bases, and bands, in the style of the Church, and is of very rich effect. There is a want of porch and vestry, and the chancel is far too short. With these exceptions all is satisfactory, and evidences the spirit of reverential care and true devotion which we must always rejoice to see manifested in the erection of God's house of Prayer."

"The shortness of the chancel," adds Mr. King, "was corrected in 1870 by its being lengthened to

its present dimensions, and the small Clergy Vestry added on its south side. The bricks then used were taken from Thompson's Flour Mill, which was afterwards converted into a tweed factory. There was practically no ventilation thought of, and, therefore, strips were cut in the wood work at the bottom of the windows. This proved quite inadequate, and in 1899 the windows were cut as at present, and good openings provided."

"It may be mentioned here," continues the author of the history, "that the timber of the structure is of the best ironbark. I was informed by the late Mr. George Wheeler, who as a boy worked with the teams drawing it, that it came from the direction of Mt. Hunter. It was given by the Messrs. Macarthur, who also subscribed £1000 to the building. In 1897, the year of Queen Victoria's Diamond Jubilee, Mrs. Macarthur-Onslow presented the clock and eight bells, on seven of which are inscribed the names of various members of her family. The large tenor bell, weighing 14 cwt., is inscribed with the Doxology."

The following description of the clock and its mechanism was supplied by the horologist who set it up:—

"The clock consists of three trains of wheels, one of which drives the clock, and the others the striking and chiming apparatus respectively, the motive power being derived from weights suspended from the top of the tower. These weigh 17 cwt., of which 8 are required for chiming, 6½ for striking, and 2½ to give impulse to the pendulum and drive the hands. The escapement is what is known as Sir Edmund Beckett's three-legged gravity, which experience has shown to be the best form of turret clocks, and the pendulum beats in 1¼ seconds, or 48 times a minute. This is compensated for changes of temperature by being made of zinc and iron, and the bob weighs about 103lbs. The three dials are 6ft. in diameter, consisting of cast iron frame glazed with opal glass, the figures being 9 inches long, the hands, of which the minute hand measures 3 feet, are of copper, and counter-poised inside the dials. The hours are struck on the tenor bell, and the chimes, known as the "Westminster" on the 2nd, 3rd, 4th and 7th of the peal. The hand chiming and tunes are rung on the whole peal of eight by means of a separate set of clappers from a bracket placed on the floor behind the organ. The going train requires winding once a week, and the striking and chiming trains every three days. The clock was made by Messrs. Gillet and Johnson, Croydon, England, and erected

by Mr. F. W. Syer, of North Sydney; the alterations to the building, hanging the bells, etc., having been performed by Mr. J. D. Rankin, of Camden, and the whole work carried out under the supervision of Messrs. Sulman and Power, architects, Sydney. The bells are from Messrs. Mears and Stainbanks, Whitechapel Foundry, London, the largest being 3ft. 7½in. wide; and 2ft. 9¾in. high, and the smallest 2ft. 3½in. wide, and 1ft. 10¼in. high."

The following brief details are also taken from the history:

The organ, which was presented to the church by Mrs. James Macarthur in 1861, was selected by Mr. E. J. Hopkins, organist of Temple Church, London. The organ gallery for its accommodation alone, was erected at the west end, but in 1899 the choir was moved to the east end of the church. St. John's was originally lighted by candles, the holes for which are still in the original seats. The pulpit, which was de-

signed by Mr. Voss, was made in 1858, while the font was carved by Mr. Buchan, who laid down the flagging of the church so wonderfully well. The centre seats were purchased under the will of the late Mr. R. Basden and replaced those donated by Bishop Broughton in 1849. These however are still doing duty at St. Peter's, Theresa Park. The beautiful eagle lectern of teak wood was purchased from a bequest made by Mr. George Vincen and was selected by Mrs. Macarthur-Onslow in London, in 1894. The memorial windows were given by different parishioners, and the beautiful lych gate was erected by parishioners and friends in memory of Mrs. Onslow. The new altar and reredos were erected by the parishioners to mark the completion of Mr. King's twenty-five years in charge of the parish. Mr. King has done great service in preserving the records of this historic church, and we are greatly obliged to him for permission to quote the foregoing particulars.

NEW BOOKS

"The Smaller English House of the Later Renaissance" (B. T. Batsford, London) is the title of an elaborate volume by A. E. Richardson, F.R.I.B.A., F.S.A., and H. Donaldson Eberlein, B.A. It contains 96 plates in half-tone and a series of comparative illustrations, together with an important series of line drawings of details. The period selected begins with the accession of Charles II., and extends to the beginning of the reign of Queen Victoria. Arthur Stratton, F.R.I.B.A., writes the foreword to "Some Eighteenth Century Designs and Details for Interior Decoration, selected from the works of Abraham Swan." It contains a reprint of 76 carefully selected plates (John Tiranti and Co., London).

Mr. Stratton is also the editor of "The Five Orders of Architecture," according to Vignola, arranged and drawn by Pierre Esquie. There are sixty-six plates, including studies of shadow projection (John Tiranti & Co., London). "The English Inn, Past and Present," by A. E. Richardson, F.S.A., F.R.I.B.A., and H. Donaldson Eberlein, B.A., contains 280 illustrations. The frontispiece in colour is from a drawing by Rowlandson, hitherto unpublished. (R. T. Batsford, London). This firm has also published "Sketching in Lead Pencil," by Jasper Salwey, which contains fifty-six reproductions of original drawings by F. L. Emanuel, Fred Roe, R.I., A. E. Newcombe, W. E. Nesfield, and the author.

NEWS AND NOTES

Plans have been prepared by Messrs. Oakley and Middleton for a memorial hall and club rooms at Bondi.

Messrs Crane and Scott have designed plans for a large factory for the Australian Banner Hosiery Mills, at Parramatta Road, Petersham.

A NEW SQUARE

The Victorian War Memorial Committee has asked the Government to introduce a bill to provide for the resumption of the Spring Street corner properties at the top of Bourke Street, for the purpose of transforming this end of the thoroughfare into a memorial square, to be known as Anzac Square.

PHOTOGRAPH OF BLACKET

An excellent photograph of Edmund Thomas Blacket, one of the greatest of our early architects, has been presented to the Institute by Mr. William Slade, of Manly, who was a pupil of Mr. Blacket. The photograph was enlarged by May Moore from a smaller one taken by Mr. Slade. The autograph of the architect is pasted on the mount. This is a welcome addition to the small but interesting collection of portraits in the Institute of those who have done the architecture of the State some service.

ROYAL INSTITUTE OF BRITISH ARCHITECTS EXAMINATIONS

The Annual Examinations of the R.I.B.A. will not be held in Sydney in February, 1927, provided that not less than three applications are received on or before October 1st, 1926. Theses must be in the hands of the Hon. Secretary not later than November 1st, 1926. Full particulars and Application Forms are obtainable at the Institute of Architects' Rooms, 5 Elizabeth Street.

J. H. HURST,
Hon. Secretary.

THE R.I.B.A. EXHIBITION

In connection with the exhibition to be held under the auspices of the Royal Institute of British Architects, in London, this year, space has been reserved for designs to be sent from the



EDMUND THOMAS BLACKET.

six states of the Commonwealth. The secretary of the Institute of Architects of New South Wales has been notified that 200 square feet have been reserved for this state. The exhibits will be despatched in time to reach London at the end of September.

AN EQUESTRIAN FRIEZE

The horse in sport in all ages is the motive of the design for a frieze in the new Tattersall's Club, Brisbane, which has been modelled by Miss Daphne Mayo, the Queensland sculptress. The Greek days are represented by two mounted horses taken from the frieze of the Parthenon, next come the Roman chariot races, then the mediaeval jousts, a more modern section following with English hunters, polo players and so on to a neck and neck horse race of to-day. The frieze, which is 12 feet long, is repeated several times along the passage of the Club. Miss Mayo was a student at the Royal Academy schools, where she won the Landseer Scholarship and the Travelling Scholarship.

WELCOME TO PROFESSOR WILKINSON

There was a record attendance of members of the Sydney University Architectural Society on June 23rd to welcome Professor and Mrs. Wilkinson on their return from Europe. The President of the Society, Mr. J. McE. King, expressed the pleasure of the undergraduate at the return of Professor and Mrs. Wilkinson, while Mr. F. Munro, B.Arch., spoke on behalf of the graduates. Professor Hook and Mr. John D. Moore, representing the staff, added a few words of welcome.

After thanking the Society for the warm welcome, and expressing his pleasure at being back at the School once more, Professor Wilkinson proceeded to give a most interesting account of his tour. He said he was particularly impressed with the work that was being carried on in the north-west of Europe. Admittedly lacking the picturesqueness of Latin architecture, it was yet extraordinarily interesting, as a reaction from the dull work of the preceding century, and as an expression of the temperament and vitality of the Scandinavian people.

Mr. K. Harris moved a vote of thanks to the Professor for his most interesting address, which was seconded by Mr. Hawdon and carried unanimously.

LONDON STUDENTS' EXHIBITION

The exhibition of the work of students of the London Architectural Association's School will be opened at Farmer's Gallery on October 11th. The collection will consist of eighty drawings, and it is hoped to make arrangements for the inclusion of examples by the students of the School of Architecture, Sydney University and the School of Architecture, Sydney Technical College. This would not only enhance public interest in the exhibition, but would be of great value to our students. There is nothing to lose and everything to gain by such an arrangement. It has proved to be very successful in connection with art exhibitions. The group of six paintings by Orpen, which were loaned by a Melbourne collector to the Society of Artists, in connection with its last exhibition, added much to the attraction of the show. It may be added that the last two exhibitions of the Australian Painter-Etchers' Society included a collection of prints by representative English etchers.

THE AUSTRALIAN INSTITUTE

The annual conference of the Federal Council of the Australian Institute of Architects was held

at Canberra during the last week in July. The delegates were: New South Wales, Sir Charles Rosenthal and Mr. J. Aubrey Kerr; Victoria, Messrs. K. A. Henderson and Oatley; South Australia, Messrs. Claridge and Cowell; Queensland, Mr. Coutts; Tasmania, Messrs. H. Masters and L. Smith; West Australia being represented by Mr. W. A. Nelson, of Sydney. The conference passed a motion that the time had now arrived for the formation of the Royal Institute of Australian Architects. Sir Charles Rosenthal was re-elected president, and Mr. J. Aubrey Kerr, secretary of the Federal Council. The delegates visited the works and buildings in progress at Acton, Ainslie and Duntroon, and the Blandfordea and Red Hill residential areas.

SUB-DIVISIONS IN SUBURBS

In the twelfth of his Vernon Memorial Lectures on Town Planning at the Royal Colonial Institute, as reported in the *Sydney Morning Herald*, Sir John Sulman, F.R.I.B.A., dealt further with the planning of suburbs and subdivisions. In England there was a tendency to seek more frontage for each house, and a good deal more open space in the vicinity of the houses. The New South Wales Building Ordinances, under the Local Government Act, prescribed 3,960 square feet (or, say 30 feet by 132 feet), as the minimum area for a single cottage, however small it might be, and this, if it were in one of the nearer suburbs, where the poor were forced to reside to escape transit expenses, made the rent on high-priced land too much for them to pay. The 3,960 square feet allotment worked out at eleven cottages per acre, without roads, and of each allotment at least one-third must be left vacant. The solution of their problem, which was to devise a minimum allotment for a minimum size cottage, the latter to include three bedrooms, living-room, kitchen, etc., had hitherto been terraced dwellings of two stories, on 12 feet to 15 feet allotments, or overcrowded cottages on 15 to 20 feet allotments. Both were unsatisfactory, and meant from 22 to 37 cottages per acre. In England cottages were now limited to 12 per acre, but these were mostly two stories, and terraces of four were allowed, giving ample garden space. In Australia the minimum area for single-story cottages worked out at 25 feet by 100 feet for the allotment, mostly built over, and no public spaces or playgrounds. Wider frontages were necessary for Australia for single-storied dwellings, and even with these at six per acre, playgrounds were necessary. A block of flats of two stories might even be necessary.

INSTITUTE OF ARCHITECTS OF N.S.W. ORDINARY GENERAL MEETING HELD JULY, 1926

THE President, Professor A. S. Hook, occupied the Chair. An apology was received from Mr. G. Sydney Jones. The President said that the Council had received the report of the Sub-Committee on the Small House Plan Service Bureau, the main recommendations of which read as follows:—

1. *THAT the Control* of the Bureau should be by a Directorate consisting of two Architects appointed by the Council of the Institute, two Architects appointed by the Board of Architects, N.S.W., and two other persons to be elected by these four at their first meeting.

The Members of the Directorate shall serve in an honorary capacity.

The Chairman to be elected from among the Members of the Directorate at their first meeting.

The Chairman to have the casting vote in addition to his ordinary vote.

2. *THAT Finance* should be arranged by getting some prominent Members of the Institute to guarantee an Overdraft with the Bank for £1,000, and that another £1,000 be borrowed from the Board of Architects, N.S.W., on which interest should be paid.

Plans were promised by the following Members of the Sub-Committee, on a competitive basis, payment for same to be deferred for twelve months at least—if the Bureau is not a success, then no payments to be made at all: Messrs. Weston, Kerr, Sodersteen, Thorp, Hurst, Moore, Richardson. It is hoped that many other Architects will make similar offers.

3. *THAT the title* of this concern be—

*THE SMALL HOUSE PLAN SERVICE
BUREAU OF THE INSTITUTE OF
ARCHITECTS OF NEW SOUTH
WALES.*

4. *THAT the Board of Control* should be brought into existence at once, and that it be empowered to go into the actual working details of administration, and that the appointment of a Director should be left in the hands of the Board, both as to individual and as to time of his appointment.

5. *THAT the term "Directorate"* be used instead of "Board."

Amendments by Council:

THAT the first Directorate be elected for two years and that thereafter one member appointed by the Institute of Architects, one member appointed by the Board of Architects, and one member elected by the Directorate shall retire annually in succession, but shall be eligible for re-election.

THAT all plans issued by the Bureau shall first be approved by the Council of the Institute of Architects.

THAT the Memorandum and Articles of Association of the Bureau, and amendments thereto, shall receive the approval of the Institute of Architects before being registered.

The President pointed out that the report as he had read it was as amended by Council, and it was now submitted to the Members to approve of it or otherwise. He wished to congratulate the Sub-Committee on the splendid work they had done during the past weeks, when he knew they had put in a great deal of work and held a number of meetings. He pointed out that this report embodied suggestions and outlines only, as to the running of this concern, and that, after consideration of these general conditions the Council thought the time had come to appoint the Directorate to get to work on the whole plan. Proposed by Mr. A. W. Anderson, Vice-President, and seconded by Mr. Sodersteen, that the report be adopted. Carried.

"This means," said the President, "that we shall now be able to get the Directorate appointed immediately, and there is no reason why the scheme should not be functioning within a few months." He also drew attention to the fact that the Committee had expressed a hope that many Architects would supply plans on the same basis as those already promised in the report. The following Members then present promised plans on this basis: Messrs. O. A. Beattie, L. C. McCredie, S. A. Neave, J. C. Fowell, A. Gerard, C. D. Leake.

The motion by Mrs. Taylor, of which notice was given at the June meeting, was withdrawn and submitted to Council for consideration.

The President asked for a progress report on the proposed new City of Sydney Building Act, and Mr. Peddle spoke, in part, as follows:—

"Some time ago a deputation waited on the Lord Mayor to seek his help in the passing of a new City of Sydney Building Act, and he was good enough to say that if those forming the deputation would prepare and submit a Draft Bill he would see that it was brought before the Council, and before Parliament, and would do all in his power to have it passed.

"Those forming the deputation, and one or two others, were called together again later by Mr. Brodrick and formed themselves into a committee, Mr. De Putron and I being the Institute's representatives.

"The Committee appointed Mr. Brodrick, a representative of the Institution of Engineers, Australia, Mr. Pringle, of the Master Builders' Association, Mr. Stuart, representing the manufacturers of building materials, and myself, representing the Institute, a Sub-committee to draft a Bill, which Sub-Committee Dr. Pudy afterwards joined.

"The draft Bill was submitted to the General Committee and approved by it on 25th June, and to-day, 6th July, it was presented to the Right Worshipful, the Lord Mayor, by a deputation representing the different organizations interested. The Lord Mayor was good enough to repeat the promise previously made and to say he would do all that he possibly could to have the Bill pushed through."

Mr. Peddle pointed out that the City of Sydney Improvement Act, 1879, had the basic defect of including within itself building by-laws, and regulations or ordinances, and that this defect was repeated in the Bill of 1908. Some of the by-laws or regulations were out of date almost before the Act became operative, and many of them were obsolete in a few months—or a few years because of new materials that are continually being made available, new methods that are discovered, and general progress in the science of building; yet these by-laws and regulations could not be varied except by Act of Parliament.

In the new draft Bill, at the instance of the Institute's Representatives, this defect has been remedied; it contains no building by-laws, no regulations, no ordinances, no schedules, but only confers powers to make building ordinances and provides machinery for the exercise of those powers; these ordinances can be modified, altered, rescinded or added to from year to year, or month to month as advance in the science of

building creates the need. There should be no difficulty in the passing of this Bill as it is non-party, non-political and non-contentious. It is so simple that only a minimum amount of the parliamentary draughtsman's time will be required to check the wording and see that the meaning is legally clear, and it should pass each reading in a few minutes. If the Bill is passed it will never require amendment but will stand for all time.

The President thanked Mr. Peddle for the tremendous amount of work he had done in connection with the framing of this draft Bill.

The President advised Members that all particulars regarding R.I.B.A. prizes and studentships are exhibited on the Notice Board in the office of the Institute.

The President asked for a volunteer to represent the Institute on the Australian Forest League. Sir Charles Rosenthal and Mr. Harris were appointed some little time ago, but Mr. Harris now finds it impossible to attend the meetings, and as the Institute is affiliated with this movement, it should be represented at the monthly meetings. Mr. A. F. T. Somerville volunteered to act as delegate to the League, for which the President thanked him. The ballot for three candidates: Messrs. A. E. Barnard, F. M. Cowper, and R. E. Grout was declared clear, and they were duly declared members of the Institute.

Mrs. Taylor gave notice of motion, to be discussed at the August meeting as follows:—

"That the Board of Architects should reduce the fees of Architects throughout the State to a price sufficient only to enable the business of registration to be conducted, and that such resolution be forwarded to State Premier for necessary action."

The President then extended to Professor Wilkinson a welcome home on behalf of the Institute, and asked him if he would address the meeting as he had promised on the subject of "Past and Present at home and abroad."

Professor Wilkinson, thanking the President and Members for their welcome and good wishes, said in part:

"I have here three groups—first various observations in England; second, trips over the South East of Europe; and third, trips over the North-West of that Continent. The first trip is into the old world, the second shows the most modern and progressive, and possibly the most interesting world to a student of the more modern arts and crafts.

In England many great changes have taken place. The Schools of Architecture were my chief concern, those I visited, most of them in England and Scotland, are working on well-considered lines under the control of the Board of Education of the R.I.B.A.—that is, I mean they are working in very close co-operation, and they hold frequent conferences between the teachers and heads of the Departments. Of the R.I.B.A. itself, I would say that this body is very very interested in the development and work of the allied Institutes overseas, and is most anxious to do all it can to help them in their work. In travelling about England, I suppose one of the greatest changes one notices is the extraordinary development of roads, which, of course, are of great interest to Architects. Particularly the circular roads round London which seem to me to be extraordinarily successful, and they help tremendously in avoiding congestion in the traffic.

A great deal of housing is being built, and some of it is good, but it is not all good from our point of view—which I found very disappointing indeed. The type is far too standardised all over the country, and although efforts have been made to preserve the different types in the different localities, it has not been successful. There are exceptions, and I think one of the best is that scheme carried out by the London County Council—they had great difficulty in obtaining material, and had to go all over the Continent to get it, and this has led to great variety in colour, etc., and some of the effects produced on this account are really very good. Some of the privately executed housing schemes and town planning schemes are developing very well. Concurrently with the actual building of the houses, there is, in some localities, a great deal of work being carried out in connection with roads, parks and bridges, and I am convinced that this is the only way to obtain the best results—to have the whole of the scheme developing together instead of trying to build the new into the old. There is great improvement in the building of factories, although I do not think there is very much to be learned there—here we have the great advantage that as most of the factories are new they can be laid out from the beginning—so many of the factories at home have grown up from very small beginnings in small buildings, which should have been scrapped and re-built. The Lecturer spoke of the great interest of the huge modern National Physical Laboratory, used for experimental work, which he visited at Teddington. Here all sorts of experiments are carried on, covering a very wide range of interests—they include all sorts of artificial lighting, acoustics, sound prevention, battleships, aeroplanes, and many other modern day problems.

He had seen the second year at the Wembley Exhibition, and most people agreed that this was not so complete as the first year. He thought there were some extraordinarily clever exhibitions—the way in which Australia and Canada tried to bring the natural conditions before the people in the Old Country was very clever indeed, and people who were familiar with the bush here would appreciate this, though those who were not would hardly realise how well the whole thing was carried out. The model of the Sydney Harbour was very delightful as also were some of the Canadian exhibits. Most Architects agree that, while some of the buildings were too monumental, others were rather too much like models of permanent buildings than of the lighter type of building that possibly might be considered more suitable for an exhibition. "I would like to say here that I met quite a number of Sydney architectural students in London, all busy, some established in offices, some preparing to travel further, and all doing very well indeed. Of the newer buildings in London, I suppose there has been more talk of Regent Street than of anything else, and it is generally agreed that the new Regent Street is not so delightful a place as the old—it is now just a London street, and not the unique place that the old Regent Street used to be.

"One of the most extraordinary contrasts in modern buildings noticed was shown in the two buildings—Britannic House, designed by Sir Edwin Lutyens, and Adelaide House, designed by Sir John Burnet not far distant from it (different views of both these buildings were later shown on the screen). Another building that must be mentioned is the Liverpool Cathedral, designed by Sir Gilbert Scott. This Cathedral is being carried out in a very deep red sandstone, and is undoubtedly the building of the generation—perhaps of the century in England. Of the memorials, the most outstanding building is in the form of a cloister, in Winchester College. It is completely detached, with the cross of remembrance in the centre. The stones of the building came from every part of the Empire, and throughout the design the whole of the Empire is represented. In idea and execution, I think this is one of the most impressive memorials that one sees."

Professor Wilkinson showed a great number of most interesting views of buildings visited during his tour, with a running commentary of historical facts, and personal impressions that kept his audience enthralled for an hour and a half.

The President expressed the appreciation of the Members, and Mr. A. W. Anderson and Mr. Harris seconded a vote of thanks, which was enthusiastically carried by acclamation.

A COLOSSAL BUILDING

THE Terminal Elevator at Glebe Island, which is the only shipping elevator in Australia, is the largest concrete building in the Commonwealth. The following particulars of its construction are kindly supplied by Mr. E. Harris, Manager, Government Grain Elevators:

The Sydney Terminal Elevator at Glebe Island, erected on the site of the old abattoirs, consists of reinforced concrete storage bins, attached to which is a working house which is equipped with the necessary truck loading machinery, grain elevators, weighing apparatus and cleaning machinery for the handling of the grain in bulk. There is storage accommodation in the house to hold six and a half million bushels of wheat, or about 183,000 tons, and the facilities are such that it is capable of receiving and loading out to ships all the wheat grown in the State of N.S.W.

The main storage consists of 72 main bins 31ft. 2in. in diameter, 108ft. high. In addition there are a number of interspace bins. The working house consists of a number of smaller bins having a capacity of 750,000 bushels. In all there are 282 bins in the house. The main storage covers an area of 302 feet by 257 feet, while the working house and track shed adjoining occupies a further space of about 144 feet by 240 feet.

Attached to the plant there is also a drying equipment where grain may be dried which is out of condition, either due to having become damp by exposure or by reason of possession a natural

higher moisture content than is safe for storage purposes. An adjacent power-control station transforms the bulk electric current received from the near-by power house of the Railway Department from 6000 volts to 440 volts for use throughout the elevator.

Four lines of railway run into the track shed, where bulk trucks loaded with wheat at the country silos are unloaded. The grain is then elevated to the top of the working house, where it is weighed and spouted either direct to the work house bins over the cleaning machines, or transferred to the storage bins by means of six conveyor belts, 36 inches wide. For shipment, the grain is drawn from the bottom of the storage bins by spouts feeding 36 inch conveyors, or from the working house bins to elevator legs which feed automatic scales. These scales will discharge to a series of shipping bins which have a capacity of 170,000 bushels. From the shipping bins the wheat is fed to four 36 feet conveyor belts which run out to the wharf galleries. From these belts the grain is tripped off the conveyors to four travelling gantries which elevate the grain to the height necessary for spouting it direct to the hold of the vessel.

The shipping facilities have already proved too small for the Port of Sydney, and the authorities are now about to erect two additional shipping galleries direct from the working house to the wharf front, which will almost double the conveniences in the way of loading overseas vessels.

INSTITUTE OF ARCHITECTS
ORDINARY GENERAL MEETING
HELD, AUGUST, 1926

THE President, Professor A. S. Hook, occupied the chair.

Apologies were received from the President and Secretary of the Master Builders' Association, who were prevented by urgent business from attending.

The Minutes of the meeting held in June last were confirmed and signed.

The President welcomed the new member, Mr. A. E. Barnard, to the Institute.

The following motion, of which due notice had been given, was moved by Mrs. Taylor:—

"That the Board of Architects should reduce the fees of Architects throughout the State to a price sufficient only to enable the business of registration to be conducted, and that such resolution be forwarded to State Premier for necessary action."

The motion was defeated by 24 votes to 6.

The President read a letter from the Town Clerk of Sydney, as follows:—

"I have to inform you that the Council at its meeting on the 30th March last decided that all building applications, especially those affecting corner allotments, should be referred by the City Architect and Building Surveyor to the City Engineer and City Surveyor, in order that he may report whether the proposed building will affect any town planning scheme suitable for the Council to carry out.

"The City Engineer and City Surveyor has now reported that while in some cases this arrangement has been successful, in many cases considerable annoyance and inconvenience is caused owing to the fact that as the plans of the proposed building have been completed and the building is very often ready to commence building operations when the building application has been forwarded to the Council, any suggested alteration by the Council involves not only delay to the builder and the owner, but frequently extensive alterations to the plans, the internal structure of the building and the general architectural effect of the elevation.

"As it is the Council's intention, where practicable, to splay the corner of streets carrying heavy traffic, it is considered that a considerable amount of expense and inconvenience could be saved if architects generally were aware of the Council's desire to splay the corners of important thoroughfares, so that prior to the preparation of plans the architect concerned could advise the Council of the proposal to erect a building or buildings in order that immediate consideration could be given to the question of splaying the corner.

I am accordingly bringing the matter under the notice of your Institute, and shall be pleased if your Institute can see its way to co-operate with the Council in effecting these improvements by bringing the matter under the notice of its members."

The President advised Members that all particulars and details regarding the architectural competition for the erection of the League of Nations Buildings at Geneva have now been received by the Institute, and that as there are only a limited number of the complete sets of conditions it will be necessary for members who intend to enter this competition to advise the Institute so that a list may be prepared and arrangements made accordingly.

The President said he was able to advise the Members that the Memorial which they had contributed to erect over the last resting place of the man they all loved, Mr. H. C. Day, late Hon. Secretary of the Institute, had been completed a few days before the anniversary of the accident which had caused his death. He went on to say that he felt sure that all who had subscribed towards this memorial felt it a privilege to do so, and he knew it would be a source of great satisfaction to them to know that this small tribute had been completed.

The President then introduced Professor F. A. Todd, B.A., Ph.D., who had kindly consented to give them an address on "The Roman House in the light of recent discoveries."

The Lecturer, who showed a series of most interesting pictures in illustration of his descriptions. The lecture is presented in part.

THE ROMAN HOUSE

IN THE LIGHT OF RECENT DISCOVERIES

LAST year you had from my colleague, Prof. Woodhouse, what I am told, and can readily believe, was a most excellent lecture on the Greek Temple. It is to this, I suppose, that I owe my present unfortunate predicament. If the Professor of Greek, you appear to have argued, knows all that there is to be known about Greek Architecture, obviously the Professor of Latin will know all about Roman Architecture. Your reasoning, Mr. President, if I have divined it correctly, does more credit to your charity than to your logic. Professor Woodhouse, in spite of his reluctance to be thrown into the architectural briar-patch, was really, like Brer Rabbit in the affecting story of the Tar Baby, born and bred in it. I myself have done no more than pick up the few scraps of knowledge that necessarily fall in the way of a student of antiquities. I should certainly have declined your President's very kind invitation to address you, an audience of experts, this evening, had I not, during a recent visit to Italy, had the opportunity of seeing new excavations at Pompeii and Ostia that have thrown fresh light on Roman domestic architecture, and the results of which, I believe, have not yet found their way into any text book. If, nevertheless, you disapprove of the dish which I am about to present to you, blame my well-beloved colleague, your President. He engaged the cook, not without knowledge of his shortcomings.

When people speak of the Roman house, they usually have in mind that type of house of which Pompeii and Herculaneum exhibit such numerous examples, a house that is a compound of Greek and Roman elements, but that is nevertheless, justly regarded as the Roman house *par excellence*. Its history can be traced back through many centuries to the primitive hut of the founders of Rome; its forms are those indicated, or even described, by many writers of the classical age of Latin literature. But these writers rarely concern themselves with any but the highest strata of Roman society. Wherever there is a reference to the housing of humbler folk, it is obvious that these lived in dwellings of an entirely different type. The epigrammatist Martial in the first century after Christ, lived up three pairs of stairs, and high ones, too; the satirist Juvenal, about the same time, laments the fate of the poor man living in a fourth storey attic, "under the tiles where the pigeons nest," when he finds too late that the house is afire; Juvenal, again, is amazed that

people insist on living in Rome, where they must pay as annual rental for a dark flat, a mere black hole, a sum that would buy them a house outright in the country. Further, there are extant building regulations that prescribe for dwelling houses a maximum height which houses of the Pompeian type could not possibly have attained.

This second type of house, at the characteristics of which the Latin writers do little more than hint, is now almost as well known as the first, thanks to the discoveries made during the last few years at Ostia, the seaport of ancient Rome.

We shall see that it proves, almost beyond a doubt, to be the lineal ancestor of the modern European dwelling-house.

Will you allow me to sketch for you, very briefly, the development of the Roman house of the Pompeian type? More or less faithful representations of primitive Italian dwellings are exhibited by numerous cinerary urns that have been unearthed in various parts of Italy. Here is one from Rome itself, dating perhaps from the eighth century, B.C. The characteristic features being (1) that it is a single-roomed dwelling of approximately circular form; (2) that the framework of the roof suggests the use of roughly trimmed branches of trees; (3) that there are projecting eaves; (4) that there is one very large door. From the total absence of windows in these hut-urns, it is reasonable to infer that the hut itself had none. Since, therefore, the doorway provided the only entrance for light and air and the only egress for the smoke of the household fire, the door was necessarily made very large; and very large it continued to be through the whole development of this type. An attempt at the reconstruction of such a house, the work of the late Commendator Boni shows, a thatched roof, of the kind still used in the huts of the Roman Campagna; but it is likely that in the earliest form of the hut the framework of branches was laced with osiers and daubed with mud.

The Etruscans, as seems likely, were the first among Italian peoples to build rectangular houses and to improve light and ventilation by piercing the roof. This important development is also illustrated by hut-urns, such as the one from Chiusi, the ancient Clusium.

In the hut-urns from Chiusi we obviously have the nucleus of the Roman house, complete even to the *compluvium* in the roof of the *atrium*. For

the Roman house of the type whose history we are now considering consisted for centuries merely of an atrium plus certain relatively unimportant accretions. The name atrium, given originally, it would seem, to the primitive single-roomed hut itself, meant the "black room," for the walls were blackened by the smoke of the household fire. When the house developed, the name was given to the large central room or court off which the other rooms opened. The plans I have show the successive additions to the original single room which resulted finally in a house of the kind shown in this reconstruction of an early Pompeian house. Further additions shown on this plan were not of native origin but merely derived from Greece—most probably from the numerous Greek cities of Southern Italy. These additions consist mainly of a court surrounded by columns—the peristyle—round which might be ranged further rooms. These rooms received light and air from the peristyle, as those of the other and earlier part of the house received them from the atrium. In essentials, almost all the houses of Pompeii conform to this plan, though of course, there are numerous differences of detail. As is illustrated from the House of Pansa, which is the biggest house in Pompeii and occupies a whole block.

First of all are shown the normal two courts, atrium and peristyle, about which are ranged the more private rooms of the house. Further, it is to be seen that parts of the building are accessible only by separate entrances from the surrounding streets, being in fact, let separately as shops and dwellings. It follows necessarily from this that the main part of the house, that occupied by Pansa himself, drew light and air solely from the atrium and the peristyle. Where the Pompeian house has windows in the external walls of the ground floor, these are small and high up, and give light, not to the main house, but to the smaller and subsidiary tenements. It follows, further, that the lighting of the rooms about the atrium was, as a rule, poor, for the normal atrium itself receives light mainly from a single opening, namely, the *compluvium*, in the roof. In a house of the type of the House of Pansa, it was possible, when the front door was open, to obtain an uninterrupted view through the whole depth of the house from the vestibule to the back of the peristyle."

Here the Lecturer showed many slides illustrating the style he was describing, including various views of the House of Pansa, the House of the Faun, the House of the Gilded Cupids and the House of Trebius Valens—the last named giving

an example from the recent excavations on the Via dell' Abbondanza, in Pompeii, where the fountain of many jets is still supplied from the ancient leaden waterpipes; and showing at the back a *triclinium*, or dining-room, with three fixed couches of concrete, coated with stucco, which is open along its whole front to peristyle. The Romans, of whom in this instance the Pompeians may be regarded as representatives, dined as a rule by daylight, and liked to have, for use in the warmer weather, an extra dining-room from which they could enjoy the beauty and coolness of the garden, with its flower-beds and fountains.

The triclinium of the House of the Moralists looks out on the peristyle through an intervening pergola. Considering how little freedom in the allocation of the various rooms to the several needs of a household was permitted by the plan of the Pompeian house, one is surprised to find that such building-in of furniture as is exemplified in this house was not much commoner.

Speaking of the work of excavating done by Spinazzola, the Lecturer said:—

"His methods were interesting. Realising that his predecessors, through faulty technique, had themselves destroyed much that might with care and patience have been preserved, he set to work on a new plan.

Pompeii was overwhelmed on August 24th, 79 A.D., partly by small fragments of pumice stone and partly by a fine volcanic ash. After the eruption torrential rains turned the ash to mud, which presently hardened about the objects that it enveloped. If these objects were perishable, they decayed in the course of time, leaving in the ash a more or less complete mould of themselves. Spinazzola endeavoured to discover these moulds, wherever possible, and from them to make casts of the objects which themselves had perished. The idea was not altogether original, for earlier excavators had contrived in this way to make a few casts of the bodies of the dead, whether men or animals; but Spinazzola went much further, obtaining by this method casts of the wooden parts of houses or else sufficient traces of these to enable him to make an accurate reconstruction. Thus along the Via dell' Abbondanza you may see either in cast or in reconstruction, the doors of houses, the shutters of shops, wooden staircases, balcony, a cashier's office, like a sentry box, in a large shop; the sliding lattices of a club house; a bed with clear indications of the webbing and a coverlet to which little ornaments of ivory are still adhering. You may even see in two gardens casts of the stumps of trees which once grew in them. Further, Spinazzola paid par-

ticular attention to the upper parts of houses, of which before his time comparatively little was known. It used to be maintained that the Roman house as exemplified at Pompeii had as a rule only a single storey, and that the second storey, where one existed, contained inferior rooms, which were occupied either by slaves or by poorer tenants. It was known, of course, that there were exceptions. Spinazzola's practice was to explore the upper part of the house thoroughly, making casts where he could and restoring wherever he found sufficient warrant, and then to make all secure before he touched the ground floor. He proved conclusively that a second storey was normal, and that this might contain rooms not inferior either in size or in decorations to the rooms on the ground floor. It used to be taught also that externally houses of the Pompeian type were scarcely distinguishable from one another: that all, in fact, presented a facade of severe and monotonous plainness. Spinazzola has shown that this is quite false; that, on the contrary, variety was attained in many ways: by the use of the balcony and awning, by different treatment of the doorway, by the construction of loggias in the upper storey, and so forth. My first impression on entering the new excavations was one of brightness, almost gaiety, of coloring that contrasted pleasantly with the drabness of the older excavations. This is produced by advertisements, e.g., of amphitheatrical shows, or of candidates for election to public offices, which are painted on some of the walls, but partly also the frescoes with which many of the houses are adorned.

But when all is said and done, these discoveries of Spinazzola's important and interesting though they are, amplify our knowledge of details rather than of essentials. They do not reveal a new type of house, if one excepts a single example of a house which lacks both atrium and peristyle. Let us recapitulate. Spinazzola has shown that the upper storey of Pompeian houses was of much greater importance than had been supposed, and that their external architecture was not monotonous. But he exhibits a house of the familiar form.

A short passage leads from the front door into an atrium, which receives light and air chiefly through an opening in the roof. Behind this is another court, called the peristyle. The various rooms, bedrooms, dining-rooms, and the rest, are grouped about these two courts and take light and air from them. Windows opening from the street on the ground floor are few and small, and seem usually to serve rooms which are let as separate lodgings. The upper storey is built only over the front of the house, i.e., over the part about the

atrium. Obviously this is a very good sort of house for a warm climate; but since it is not capable of vertical extension, it is not sufficiently economical of space for a large and populous city, however suitable it may be for a small country town. In Rome, where land was very valuable, it was quite beyond the means of any but the wealthy. The bulk of the population of Rome was housed in flats in high tenements called *insulae* or "island-blocks," and the recent excavations at Ostia have shown, at last, what these *insulae* were like. In Ostia, only two, or at most three, houses of the Pompeian type have been discovered; the rest are blocks of flats of kinds which I shall presently describe to you.

In passing from Pompeii to Ostia we leave a quiet and remote country town of 20,000 inhabitants and come to a busy seaport of thrice that population, distant from Rome by road only some 16 or 17 miles, and standing to Rome in an intimate relation of service. Here cargoes destined for Rome were transferred either to barges which were then towed up the Tiber, or else to waggons which bumped and rumbled along the Via Ostiensis up to the city. Ostia grew and declined with Rome. By the first half of the first century B.C. it had attained its greatest extent. Augustus and Tiberius, about the beginning of the Christian era, embellished it; between the last quarter of the first century and the end of the second century a great part of it was rebuilt at a slightly higher level and on a more sumptuous scale. Thereafter the decline set in, and in the Middle Ages, when Rome herself was fallen utterly from her high estate, Ostia was abandoned. The flooded Tiber poured his waters over her deserted streets and squares, and, withdrawing, left in the fertile silt the seeds of destruction; sands from the neighbouring seashores were swept in by the gales; till at last little was left to mark for the wayfarer where Ostia lay buried but one great temple, stripped indeed of all the magnificence of marble, but still towering massive and resolute, above the dreary waste of weeds.

We should expect to find in such a town not the houses of magnates—for such of these as had financial interest in Ostia could very well control their business from the neighbouring capital—but the houses of merchants and shippers and of the rank and file of those who dealt with the seaborne trade of Rome. The event justified the expectation. The houses so far unearthed, in the better part of Ostia are those of the prosperous commercial class, and represent the finest kind of tenement erected in a large and busy town. Later, no doubt, as the excavations proceed, we

shall see inferior tenements which will nevertheless conform in essentials to the same type. But you want to hear about the houses of Ostia. With the two or three exceptions to which I have alluded, these are totally different from the Pompeian houses; but while exhibiting considerable variety among themselves, they have certain characteristics in common. Whereas, as we have seen, the main extension of the Pompeian house is horizontal, these extend vertically to a height of at least three, and probably four or five storeys. The Pompeian house draws light and air from atrium and peristyle, the Ostian house from large and numerous windows opening on to the street and on to inner courts. Sometimes these courts are comparable in size with the peristyle of the Pompeian house, sometimes they are much bigger; sometimes, again, they resemble the light-well in the modern warehouse or block of flats. In every instance they lack the columns which are the characteristic features of the peristyle. Each house is divided into a number of flats, each of which has usually its separate entrance from the street. Staircases leading either from the street or from courts or wells give access to the upper flats. All flats are thus made as far as possible self-contained. (Not, I suppose, that any Ostian architect ever anticipated the achievement of which a bachelor friend of mine was recently the victim. My friend, returning after a holiday to the room at Manly which he had occupied contentedly for some years, found that during his absence it had been turned into a flat, self-contained, with all conveniences). These Ostian houses are very solidly built of concrete faced with brick. Variety is lent to the facades mainly by differences in the treatment of doorways and windows, and by the use of portico and arcade, loggia and balcony.

Throughout the Roman towns the walls of houses, as of public buildings normally, consisted of a core of concrete faced with some other material. The external walls of Pompeian houses are sometimes merely coated with stucco laid directly over a concrete of rubble; more often, thin tile-like bricks are set into the concrete at corners and about doorways. Sometimes the outer surface of the wall is faced with the net-like arrangement of stones called *opus reticulatum*.

But even when these facings were employed in Pompeii, they were usually overlaid with stucco, from which it seems reasonable to infer that their purpose was not to decorate but to reinforce the concrete, about whose durability quite baseless doubts were entertained. This inference is supported by numerous buildings in Rome itself,

such as the Basilica of Constantine, the Baths of Diocletian, and the Baths of Caracalla, in which the walls of concrete were faced with brick, which, in turn, was faced with marble. There can, I suppose, have been on constructional difficulty in the way of bolting the slabs of marble directly on to the concrete, so that the bricks must have been intended to strengthen the structure.

At Ostia, on the other hand, the warm red brick with which the concrete core was faced was left exposed, as is proved by ample evidence, and the effect is altogether pleasing."

Among other pictures, the Lecturer showed the House of Diana, where he pointed out the balconies, large windows, and the direct access to the various apartments from the street, and the evidence for the use of color to pick out arches and windows. "This House of Diana and its next-door neighbour, the House of Paintings, are the largest and finest in Ostia. Though these and other big houses are not preserved above the third storey, there can be no reasonable doubt that they comprised at least four and probably five storeys. The evidence is various and abundant. (1) The excavators have found huge quantities of the debris of floors that existed above those that have survived; (2) The walls from foundations to second floor have a uniform thickness of two feet, giving far greater strength than is required by a building of three storeys; (3) The houses as they stand now are squat and top-heavy: considerations of proportion call for greater height; (4) Imperial building regulations fixed from 60 to 70 feet as the maximum height for such structures; and since there must have been a great demand for flats in so busy and prosperous a town, it is likely that property-owners, with an eye to increased rentals, built fairly near to the maximum height. Five storeys would certainly total less than 60 feet. Of the roofs of these houses nothing can be known with certainty, except that they were tiled in the usual Roman clay; but it is likely that they were usually, if not always, sloping roofs. The flat roof was not unknown to the Romans, but appears to have been rare. The staircases are invariably of concrete, except those which lead from shops to the shopkeepers' room above. These, as in Pompeii, were of wood."

When showing the final pictures of the reconstructed houses the Lecturer asked: "Do you think these too modern to be true? I confess that I did, until I went to Ostia and saw for myself. One does not need to be an architect to be struck at once in Ostia with the amazing modernity of its houses. What inference are we to draw? These

houses are certainly Roman houses, for it is incredible that a town so close to Rome and depending for its very existence on Rome discarded the Roman type of dwelling and developed a type of its own. Moreover, the discovery of the Ostian house has led to the recognition in Rome, *e.g.*, above the House of the Vestals, near the Forum, and on the Caclian Hill, of remains—scant, it is true, but still remains—of not dissimilar houses.

And finally, there is nothing in the Ostian house that is inconsistent with what Latin writers tell-

us about the *insula* of Rome. The Ostian house, then, I repeat, is a Roman house. Its origin, unlike that of the Roman house of the Pompeian type, is unknown, nor can its later history be traced continuously. But there can be no reasonable doubt that this type of house persisted, like so much else of the Roman tradition, through what we so superciliously call the Dark Ages, and that the modern house which so closely resembles it is not a re-invention, but a survival. Archaeology has discovered a new element in our debt to ancient Rome."

The President thanked Professor Todd for his most interesting lecture, and expressed the indebtedness of the Members to him for the trouble he had taken in preparing so much detail for them.

Mr. Nangle proposed a vote of thanks, which was seconded by Sir Charles Rosenthal and carried by acclamation.

Mr. S. H. Buchanan asked if anything further had been done in the matter of quantities, which subject had been discussed on several occasions. The President replied that a conference on this subject had been held between the Master Builders' Association, the Institute of Quantity Surveyors, and the Institute of Architects, and that the two former Bodies had agreed to further consider the matter and then again approach the Institute with a view to a further conference. To date nothing further had been heard from them.

Mr. Buchanan suggested that a visit by members the Institute to the Underground Railways would be of interest.

The President agreed with the suggestion, and promised to arrange a visit to be made at an early date.

Sir Charles Rosenthal, at the invitation of the President, advised the members that, at the meeting of the Federal Council held at Canberra during the last week in July, it had been unanimously decided that the time had now arrived for the formation of a Royal Australian Institute of Architects. Memorandum and Articles of Association have been prepared and are to be submitted to the different States almost immediately; and it is hoped that this Royal Australia Institute may be an accomplished fact by the 1st January next, and that its first meeting may be held in Canberra during the visit of the Duke of York and that it will be possible to arrange that His Highness will open it. Sir Charles said that this was a most important step, and he hoped that each and every member realised how far it carried them forward in the direction of an Empire-wide Institute.

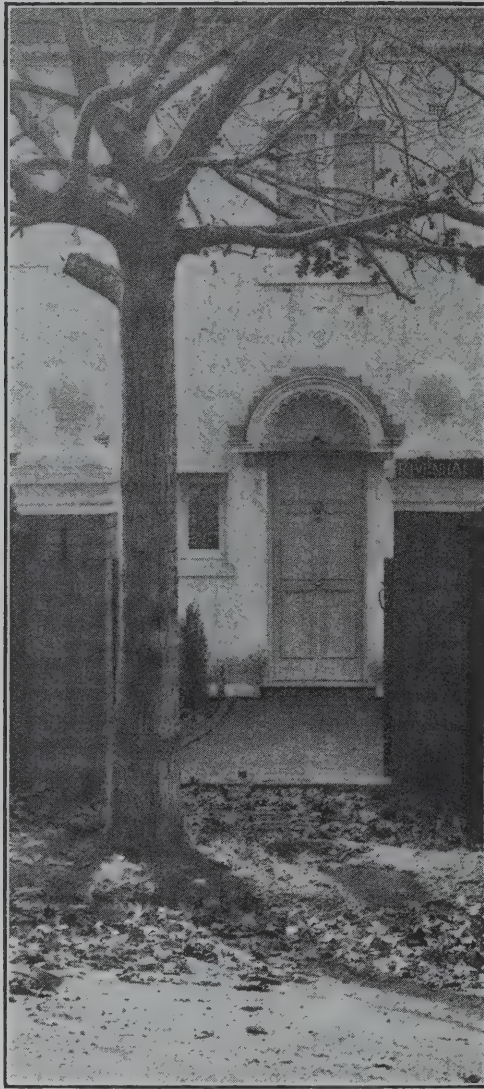
NOTICE TO ARCHITECTS

HYDE PARK COMPETITION

Members of the Institute are reminded that the Municipal Council of Sydney has invited competitive designs for the lay-out of Hyde Park. A copy of the conditions and diagrams may be seen at the Institute Office, and copies may be

obtained, by those intending to compete, from the Deputy Town Clerk, Town Hall, Sydney.

The closing time and date for receiving designs is noon on Monday, 1st November, 1926.



THE TUDOR DOORWAY,
Rivenhall, Warawee.

Architect—S. H. Buchanan. Cazneaux Photograph.

ARCHITECTURE

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PRICE ONE SHILLING



CASTLEREAGH STREET, SYDNEY

A Pencil Sketch by Eric Thompson

SWEDISH ARCHITECTURE

Automatic Hot Water

Numerous homes have now installed "The RAPID" Electric Automatic Hot Water Services and at least 80% of these Services have been from the recommendations of satisfied users.

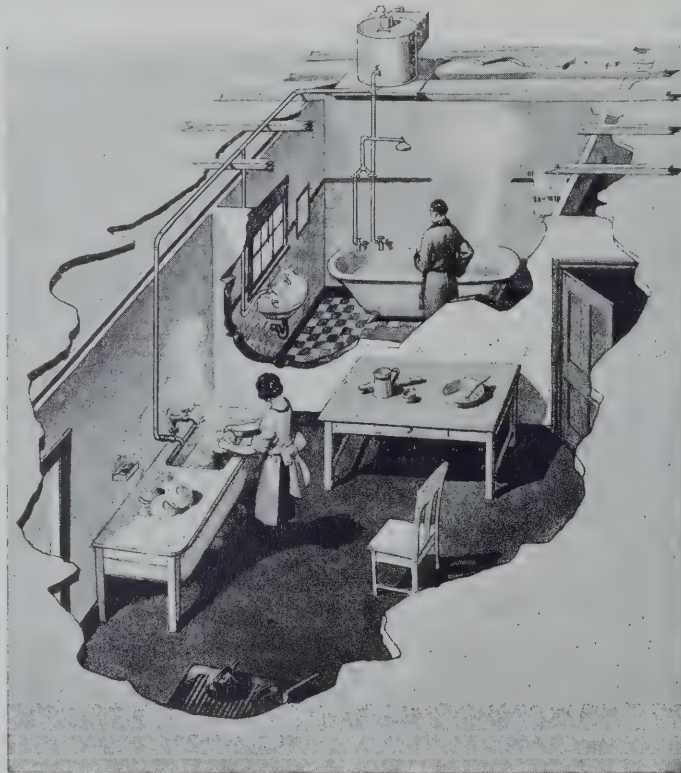
Other homes have had their present Gas and Fuel Services converted to an Electric Service, with little or no alteration to existing piping, thus providing an alternative heating system, whilst saving Capital Cost. The reason for this is that the maintenance cost of an Electric Service is NIL, and its consumption cost half that of gas, neither is there any unpleasantness from fumes, or fear of explosion.

All installations are carried out by our **own staff** of expert hot water fitters, enabling us to give a two years' guarantee over the complete system.

Illustration depicting the Electric Service in operation. Note.—Cold Water Feed Box, Heating Units, and Hot Water Storage, all in one.

Some of our installations:

Begg, G. R. (Bellevue Hill)
Beale, Edward (Rose Bay)
Berk, A. C. (Bellevue Hill)
Borchard, Albert (Killara)
Bloxham, G. (Gore Hill)
Cohen, A. (Bellevue Hill)
Chisholm, C. H. (Darlinghurst)
Cruttenden, F. P. (Darling Pt.)
Crocket, Jas. (Wahroonga)
Dearberg, S. L. (Coogee)
Davis, P. H. (Rose Bay)
Deane, F. G. (Double Bay)
Gray, S. F. (Watson's Bay)
Garland, J. (Lindfield)
Gould, G. (Rose Bay)
Gale, C. C. (Cremorne)
Harrison, A. (Neutral Bay)
House, A. (Wollstonecraft)
Hollis, R. E. (Dorrigo)
Keep, Edward (Double B.)
Kelk, J. R. (Wagga)
Lane, J. C. (Grafton)
Maher, Dr. H. Odillo (Double Bay)



Some of our installations:

Maher, Mrs. Odillo (Piper)
Norton, Ezra (Vaucluse)
Prevost, R. a de (Ecliff)
Palmer, E. A. (Mosman)
Phillips, B. (Neutral Bay)
Sutton, G. R. (Pymble)
Sly, Dr. G. J. (Double Bay)
Shaw, H. E. (Maroubra)
Sands, Graham (Wollstonecraft)
Strelitz, R. (Vaucluse)
Smith, C. H. (Gordon)
Thompson, N. M. (Dorset Bay)
Tylor, S. L. (N. Sydney)
Thornton, C. H. (Gordon)
Williams, Mrs. W. A. (Afield)
Winchcombe, K. E. (Dorset Bay)
Watson-Brown, J. (Piper)
Whitloid Products (Factory)
Young, E. J. (Bellevue Hill)

Some of our larger installations:

Dudley Hospital (Orange)
King's Head Hotel (Park St.)
Lithgow Hospital (Lithgow)
Palmer & Son Ltd. (Park St.)
Sir Joynton Smith's new residence (Coogee)

Clarence River County Council (Grafton)
Sydney Town Hall (Three Installations)
Newcastle City Council (Newcastle)
Yellow Cab Co. (Main Depot, Darlinghurst)
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ARCHITECTURE

THE JOURNAL OF PROCEEDINGS
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September, 1926

SWEDISH ARCHITECTURE THE STOCKHOLM TOWN HALL

IN the Sweden Year Book, 1926, there is an interesting account of the recent developments of architecture in that country which have attracted so much attention. "It is the generation following immediately after Clason, who may be held to have done most to win for Swedish architecture the high repute it now enjoys," says the writer of the article. "There is Ferdinand Boberg, for instance, an architect of less traditional type; endowed with a strong bent toward fantasy, who has made a big name for himself as a designer and builder in connection with the great public exhibitions in Sweden, and the examples of Swedish architecture erected in international exhibitions elsewhere. A peculiarly successful achievement of his were the buildings of the Art and Crafts Exhibition in Stockholm in 1909, as the late Walter Crane, among other foreign visitors, warmly testified.

"Then there are Carl Westman and Ragnar Ostberg, who came to the front after 1906, and who also are incarnations of the new energy and national will that were among the fortunate outcomes of that severance with Norway which brought our long period of internal dissensions to a close. Their immediate predecessors had indeed displayed a slight, so to speak, Platonic regard for the national features in the older Swedish style of architecture. Clason had his French training, and Boberg an American strain or tendency in him which comprised, among other things, a taste for Oriental decoration; and they both showed a gradually increasing sense for Swedish features in the details of masonry. But with Westman and Ostberg there came in a deeper study of everything that was involved in Swedish tradition, and this was to be recognized not merely in certain distinctive forms in towers, in panelling, and in a predilection for ornamental

motives borrowed from Swedish scenery, but, above all, in the peculiar construction of the buildings themselves and in the shape and proportions of the rooms and in the use of the building materials. They both revealed a special affection for the early Vasa style, which includes both Gothic and Renaissance elements.

"It may be easier for English readers to form some idea of the work of the architects who have been named if Westman be called a Swedish Lutyens, serious, compact in his general effects, and Ostberg a Swedish Lethaby, a less prolific artist but of a finer type and of a richer fantasy. Naturally these resemblances are but partial, for the two Swedes in question have points in common also with the English Romantics such as Baillie Scott. For the best among the younger men in Sweden it is really more difficult to find English equivalents. There are bonds of union, both in the matter of abstract design and in that of the freshness and naturalness of their actual productions, between Bergsten and Asplund and the Englishman Voysey and the Scotsman Mackintosh. And the whole tendency in Sweden towards the simple and severe may be said to have its counterpart in the latest developments of English architectural art.

"The younger Swedish architects have not the same scope for monumental achievements as their predecessors. They find their most important tasks in standardization; in the construction of small practical apartment houses, small villas, farmhouses and factories. It is noteworthy, as marking yet another step away from individualistic Romanticism, that since the war the Swedish architect should have had to devote his attention to this standardization of type. The individual and the aristocrat have become rarities as home owners, and the architect has now to cater for



Process blocks by Bacon and Co. Ltd.

Stockholm Town Hall.

the average requirements of whole communities; a state of things existing equally in England. Indeed, it looks as though the modern engineer might presently enter the field as a rival to the architect, and there is even reason to fear lest some of the finer qualities of architecture may not have to be sacrificed to utility. In Sweden this tendency of the times is counter-balanced by an increase in technical efficiency, a systematic co-operation between all the elements of the building trade, and an artistic enthusiasm and resourcefulness which bids well for the future. In spite of everything, therefore, one is justified in believing in the importance of the forces of mind even in an age which is putting forth all its efforts to cope with material depression."

Of all the recent buildings erected in Sweden the one which has created the greatest interest is the Stockholm Town Hall. A full description of this structure is given by Professor Ragnar Ostberg, its architect, in a booklet kindly lent by Professor Wilkinson.

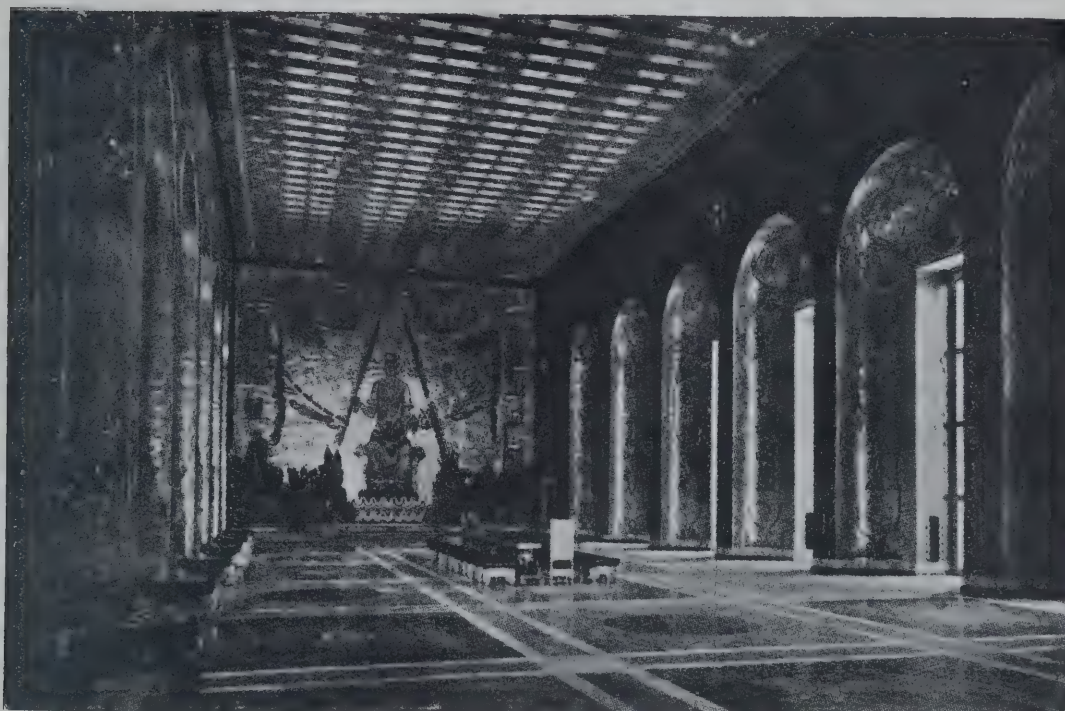
This little volume begins and ends with bars of music; and the designer of this wonderful edifice observes that his aim was to see the Town Hall stand out "as the right new tune to good old words." It is a great national work, in which the

arts have been employed to illustrate the progress of the city from the time of its founder, Birger Jarl. Scenes and incidents of its history are represented in frescoes and reliefs and its great citizens are immortalised in portraits, busts and statutes. On the terrace you may observe the figures of Froding, the poet, Josephson, the painter, and the more famous Strinberg. Every form of the handicrafts was introduced and was designed and carried out by the city's most able craftsman. The layout of the gardens was carefully considered, and a celebrated composer was engaged to compose the melody of the chimes, rung before the stroke of each hour.

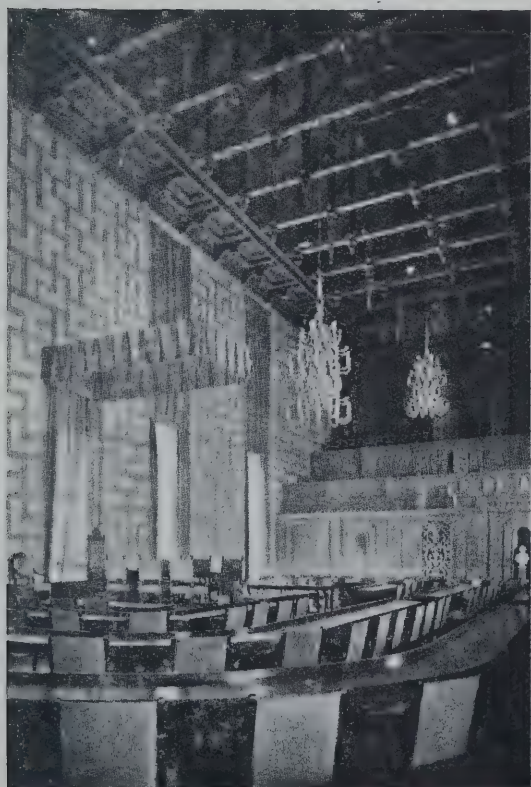
The following is a description of three of the principal chambers of the structure:—

"The Blue Hall, in addition to the everyday function of serving as a centre of communication with steps and lifts to all administrative departments, also serves as a place of assembly for popular meetings and popular concerts, to be used at representative festivals by institutions, domiciled in the capital. In city receptions and festivals the hall in conjunction with the Golden Chamber and the gallery running along side, forms a festival hall, divided between two levels. Above the

THE STOCKHOLM TOWN HALL



The Golden Hall.



The Council Chambers.



*Process blocks by Bacon and Co. Ltd.
The Blue Hall.*

marble windows of the farthest wall, can be seen, like small canopies, coloured and gilt copings of wood, and above the moulding of the facade in brick, there is a wooden projection which forms the transition to the window openings. The high gallery, with its wooden lattice, on the right, accommodates a swell organ, the sound boards of which are concealed by the highly coloured baldachino of canvas, stretched below the roof of the hall."

"The Council Chamber occupies a floor area of 25 by 14 metres, a length above the galleries of 41 metres and a height from floor to ceiling of 19 metres. The room goes up through the whole visible roof construction. It is designed and furnished throughout with a view to the lofty purpose of the business transacted there, and with due attention to the great demands in acoustic respects, as the City Councillors, numbering one hundred, here hold their discussions and make their decisions. All the wall surfaces and also the ceiling surfaces between the roof trusses, are covered by a framework of pine laid on the under surface, with cloth stretched loosely between them. The galleries on either side are entirely panelled and also the window embrasures. The deeper gallery on one of the short sides of the

room is intended for the public, and accommodates over 200 persons, while the smaller gallery is for representatives of the press in its lower part, and specially invited guests in the upper part. The colour scheme of the room is an endeavour to recover the light tone of the eighteenth century in Sweden, with a primitive Swedish red.

The decorative colour scale is in other respects conceived in a grey intermediate tone, in blue with a touch of black, and the motives in the ceiling represent, when we look at them more closely, views of Stockholm from age to age, all resting beneath one and the same blue heaven."

"The function of the Golden Chamber is to serve as the most highly representative hall of assembly for the city. It provides accommodation for seating 750 persons at any banquet held on festive occasions. The room is 44 metres long, 14 metres broad and 12 metres high. Both the floor, with a large pattern, and the dado, are in Kolmarden marble. The walls are entirely covered with mosaic work. The ceiling, consisting of the actual beams, is made of exposed cement treated in colour. On either long side there are seven great niches, the majority of which have windows opening on to other parts of the interior of the building."

The Closing Date of the Hyde Park
Competition has been extended one
month — to 1st December, 1926.

OLD COLONIAL ARCHITECTURE

THE WILSON COLLECTION OF DRAWINGS

THE purchase of Hardy Wilson's Collection of Drawings of Old Colonial Architecture in New South Wales and Tasmania by the Commonwealth Government for £3000, gives the final mark of distinction to the most thorough achievement in research ever attempted by an Australian architect. In these drawings of the most beautiful of the early architecture of the oldest colonies, a definite branch of Georgian architecture has been placed on record for all time. The collection will have a rare interest for architects the world over. As it preserves the line of a priceless tradition, its value to Australia is incalculable.

Mr. Wilson was prompted to undertake this work after observing the efforts made in research by English architects, who had no other motive than to benefit the profession to which they belonged. He stated the other day, that had he realised the magnitude of the enterprise, he might have hesitated before attempting it. He didn't perceive the extent of the work till he was half through. The collection, which was begun in 1912 was not finished till 1922.

The area explored includes all the early settled districts of New South Wales and Tasmania, covering approximately twenty thousand square miles of territory, most of which was searched in a network of lines from one likely point of discovery to another. The completed record contains one hundred free-hand drawings and fifty measured drawings. The buildings drawn were built between the years 1790 and 1840, during the first fifty years of architecture in Australia.

The subjects of the free-hand drawings include: Burdekin House; The Old Treasury Building, Church Hill; Hyde Park Barracks; St. James' Church; "Newington," Parramatta River; "Horsley," Smithfield; "Greystanes," on Prospect Hill; The Old Government House at Parramatta; The Doorway to Dr. Callaghan's house at Windsor; St. John's Church, Camden; "Denham Court," Ingleburn; St. Matthew's Church, Windsor; St. Peter's Church, Richmond; "Fernhill," Mulgoa; "Subiaco," Rydalmere; Richmond Terrace, in the Domain; Liverpool Hospital, Liverpool; "Wivenhoe," at Cobbity; Old "Tirranna," Goulburn; "Riversdale," Goulburn; and The King's School, Parramatta. The Tasmanian group includes rare examples of early architecture drawn in Hobart, Launceston, Campbelltown, Bothwell, Pontville, Longford, Ross, Risdon, and the county of Cornwall.

The subjects of the measured drawings include: Burdekin House (five drawings); St. James' Church, Sydney (four drawings); St. Matthew's Church, Windsor (four drawings); St. Matthew's Rectory (one drawing); Royal Hotel, Windsor (two drawings); "Clarendon," the Cox Homestead, Hawkesbury River (three drawings); The Old Schoolhouse at Macquarie Fields (five drawings); "Subiaco," Rydalmere (two drawings); "Horsley," Smithfield (two drawings); Riversdale, Goulburn (one drawing); and a series of drawings of fan lights made in New South Wales and Tasmania. In making the measured drawings, Mr. Wilson had the generous help of his partners, Mr. S. A. Neave and Mr. John L. Berry, who undertook some of the work, while several sheets were drawn to scale by Mr. D. K. Turner.

During 1923, Mr. Wilson was invited by the Board of Education, London, to show his collection of drawings as a special exhibition in the Department of Prints and Drawings, at the Victoria and Albert Museum, South Kensington, for three months, and it attracted so much attention that the exhibition was extended for a further period. It was during this last visit to Europe that he made arrangements for the publication of "Old Colonial Architecture in New South Wales and Tasmania," which contained fifty drawings, selected from the Collection. The reproductions in collotype facsimile were made by Arthur Jaffe, of the firm of Max. Jaffe, Vienna, who did the reproductions of drawings by Old Masters in the celebrated Albertina collection of drawings in Vienna. The publication of the book in Europe and America was placed with the Medici Society, the Australian copies being published by the Author.

In the Introduction to this volume, from which we have drawn the information in this article, Mr. Wilson ably describes the characteristics of the Old Colonial Architecture. "The immense scale of the Continent, changing the insular attitude and forms, lead to a long spreading plan in harmony with the great spaces around, even as the climate led to the universal introduction of verandahs," he writes, "Old Colonial is an architecture of sunlight and shadows, of buildings and trees. To the golden splendour of the Australian sunlight and to the combination of building and tree, it owes its peculiar beauty."

It is expected that the Collection will be exhibited in Sydney and Melbourne.

AUSTRALIAN INSTITUTE OF ARCHITECTS

ANNUAL CONFERENCE OF THE FEDERAL COUNCIL

THE annual conference of the Federal Council of the Australian Institute of Architects was held at Canberra, from July 27th to the 30th. The following delegates were present: New South Wales, Sir Charles Rosenthal (President), Mr. J. Aubrey Kerr (Hon. Secretary and Treasurer). Victoria, Messrs P. A. Oakley and W. A. M. Blackett. South Australia, Messrs. P. R. Claridge and H. H. Cowell. Queensland, Mr. J. V. D. Coutts. West Australia, Mr. W. A. Nelson. Tasmania, Messrs. H. Masters and Roy Smith.

The President (Sir Charles Rosenthal), in welcoming the delegates, remarked that the Federal Council of the Australian Institute of Architects was the first of the professional bodies to select Canberra as the centre in which to hold its annual meetings, and expressed the hope that at this conference the foundations of the proposed Royal Institute of Australian Architects would be laid. He referred with pleasure to the fact that the cordial relations existing between the Federal Council and the Commonwealth Government, the Capital Commission and each of the State Institutes had not only been maintained, but strengthened.

Sir Charles Rosenthal was unanimously re-elected President, and Mr. J. Aubrey Kerr, Hon. Secretary and Treasurer for the year 1926-27. The question of the registration of architects was fully discussed, and it was agreed that a letter should be forwarded to the Institutes of Tasmania, South Australia and Queensland, urging that registration should be secured at the earliest possible date. When this had been secured by all the States, it was felt that reciprocity between the respective Boards would naturally follow, the standard of qualification to be that of the R.I.B.A.

Mr. Claridge submitted the conditions (prepared by Mr. Laybourne Smith, of S.A., at the request of the Council) for a measured Drawing Competition for students under 25 years of age. The conditions were adopted, and it was decided to ask Sir Bertram Mackennal, R.A., to design the bronze medal for the competition, which will be held in connection with the next annual meeting, the members of the Council to be the judges.

It was agreed that Mr. Arthur Kirkland should be the Council's representative with the R.I.B.A. Correspondence was read to and from the Home and Territories Department, as a result of the

resolution passed last year, that the architectural profession should be represented on the Federal Capital Commission. It was noted that the Minister had agreed with the suggestion made by the Council, that in the event of the Commission being extended, or a vacancy occurring, consideration would be given to the appointment of an architect. It was decided to re-affirm the resolution of the last conference and forward communications to the Minister and the Chairman of the Federal Capital Commission. It was also agreed that a request should be made to the Federal Capital Commission for the allotment of a suitable site in the Civic Centre, upon which a building could be erected for architectural and kindred professions. It was pointed out by the President that the present sub-divisions in the Civic Centre made little or no provision for office accommodation for members of the various professions, who desired to practice at Canberra. It was resolved that the Commission be requested to allot a definite section for the erection of office buildings to house the various professions.

On the subject of developing Australian industries, it was agreed that, wherever possible, Australian materials should receive preference in specifications, and thereafter, those of British and allied countries. Mr. Kerr submitted the proposals of the Institute of Architects of N.S.W. for the establishment of a Small House Plan Service Bureau, and explained the details. The Conference expressed its appreciation of the proposal, and a request was made that a copy of the scheme should be forwarded to each of the State Institutes for consideration. Mr. Kerr agreed. The urgent necessity of making provision to meet the future demands of the Commonwealth for soft timber in the construction of buildings, was affirmed by the Council. It was pointed out that the demand for such timber within the territories of the exporting countries must reach a stage when those countries will forbid its export, this position having been reached in connection with the export of kauri from New Zealand. The Conference welcomed the initiation of a Commonwealth Forestry Department, and strongly urged the fullest co-operation between the Commonwealth and the States in the planting of soft woods of the most suitable varieties, for the divergent climatic and soil conditions of Australia. It was decided to communicate with the Commonwealth and State Governments.

A resolution that the time had arrived when the Royal Institute of Australian Architects should be created was carried unanimously, and a draft memorandum and articles of association were prepared for submission to the State Institutes. By courtesy of the Chairman of the Federal Capital Commission, visits were paid to Acton, Ainslie, Duntroon (by courtesy of Colonel Herit-

age, Commandant), Parliament House, Secretariat Building, the Hostels, Telopea School, Blandfordia residences, Cotter Reservoir, Pumping Station, Stromlo Observatory, The Nursery, Yarralumla House, and the Prime Minister's residence. It was resolved that Canberra should be permanently fixed as the annual place of meeting for the Federal Council.

LONDON STUDENTS' EXHIBITION

THE coming exhibition of the works of students belonging to the School of Architecture, conducted by The Architectural Association, London, is one which should create considerable interest among architects and students. It will be opened at Farmer's Gallery on October 11th. This school is well known to Messrs. J. Aubrey Kerr, John D. Moore, C. B. Greenwell, Eric Apperley, P. J. Gordon, C. C. Ruwald and others, who once studied there. "There was a delightful atmosphere about the place," said Mr. Kerr, "a high standard was maintained, and the spirit of co-operation was very fine."

The Architectural Association rose from small beginnings. Founded in 1847 for the purpose of encouraging and providing facilities for the study of architecture, its first educational work took the form of friendly evening meetings between students and older architects, when various architectural problems were discussed and advice asked and given. In time various classes were formed in building construction, and architectural design and drawing, which were visited by honorary lecturers and instructors. Some years later a definite scheme for evening classes was formulated and paid lecturers were appointed. In 1900 it was decided to institute a full-time day school course, which, in the first instance, was spread over a period of two years. Later, the course was increased to four years, and after the War it was extended to five years. The institution of full-time school training in architecture gradually superseded the old system of articles, which had been in vogue in England, and at the present time the article system is practically non-existent in London and the large cities.

The School of Architecture, which is the Association's most important branch of work, is now the largest in the British Empire, and usually has nearly 200 students attached to it, who are drawn from all parts of England, the British Empire and other parts of the world. Nearly all the leading architects in England have taken advantage of the educational facilities of the Association

during their student days, and the membership of the Association itself is upwards of 1,700. At present, the Association occupies premises in Bedford Square, which has often been described as the finest 18th century square in London. It was built in 1780 by Thomas Leverton, and is one of the few still retaining its untouched original character.

The Association has three houses, which are typical of the architecture of the period in which they were erected, and each of them contains many fine features, such as ceilings, fireplaces, etc. The lease of these premises was acquired in 1917, and various internal alterations and additions were made to the buildings, involving expenditure of about £30,000. Two of the houses were converted into one, and at the rear of the buildings, four large studios were erected for the School. On the ground floor in the front block, is a members' dining saloon extending the complete width of the two houses, and on the first floor is the library, containing about 5,000 books, with a members' room behind it. These rooms are used both by members of the Association generally and students, as a club, and as evidence of their popularity, it may be cited that an average of 70,000 meals are served in the dining room during the year.

Exhibitions are held from time to time on the premises, and there are various other activities, such as organised visits during the spring and summer seasons to buildings of interest, both in London and the country, besides an annual excursion to some country on the Continent. The affairs of the Association are controlled entirely by architects who are elected annually to the Council by members, and the School is under the sole control of the Council. There is a Committee elected by the students themselves, which deals with the affairs appertaining to the student life in the School. It has always been the policy of the Council to carry on the affairs of the Association in the same spirit of mutual help, which actuated the founders of the Association, and it is in this

spirit that it extends an invitation to all architects and students visiting London, to make use of the Association's premises and its organisation—any way they may find useful.

The collection of eighty drawings sent out from the School contains examples of all grades in the five years' course, and represents a good average of each year's work. The exhibition will also include drawings by the students of the School of Architecture, Sydney University, and the School of Architecture, Sydney Technical College. The collection by the former will consist of

a series of examples of work both on the design and the constructional side, for each of the four years of the course. The collection by the latter will be generally representative; but how far the course of study may be covered will largely depend upon the space available. The number of drawings covered by the average student in his course of study would be equivalent to the number exhibited from the London School. The work, however, will comprise examples in architectural composition and design, as well as measured studies and equise problems.

ST. MARY'S CATHEDRAL

WITH the exception of the spire, which will rise to 258 feet above ground, St. Mary's Cathedral will be completed in time for the Eucharistic Congress, which will be held early in 1928, when it will be attended by delegates from all parts of the world.

The work of completing the structure is being carried out by the firm, Messrs. Hennessy, Hennessy, Keesing and Co., which has had charge of the construction of all the nave, except one bay. The main additions have been made, with some variations, in consonance with the original design made by the late Mr. W. W. Wardell, but the crypt, which was not provided for in the original plans, and also the main front approaches and the eastern and western approaches are from designs prepared by the present architects.

The whole vaulting of the crypt has been constructed with reinforced concrete, covered with ware of a terra cotta colour. The lives of the Saints are represented on the walls, which are a mass of colour. A large monumental staircase gives access to the crypt, the main entrance being outside the building.

Sculpture has an important place in connection with the interior of the Cathedral. The modelling and carving of the heads of two hundred saints has occupied Mr. Fred. McGowan and his assistants for three years. Many details had to be carefully considered, and the work shows rare artistic skill. A bronze statue of Cardinal Moran, which will be placed in front of the main entrance in Cathedral St., will be modelled by Sir Bertram Mackennal, R.A.

The stone work of the main building is practically completed. At the present time, stone vaulting is proceeding on both aisles, and some portions are already finished. The south-western tower has to be carried six feet higher and the south-eastern tower fourteen feet. The additions made by the firm are one hundred and forty feet long by ninety feet wide, the total length of the Cathedral, which is one of the largest constructed in modern times, being over 350 feet long. The work has now advanced to such a stage, that tenders have been accepted for glazing, slating, plumbing and electric lighting.

SYDNEY TECHNICAL COLLEGE ARCHITECTURAL CLUB

AN IDEAL

SOMEWHERE we have read: "Here lies the tragedy of our race. Not that men are poor; all men know something of poverty. Not that men are wicked; who can claim to be good? Not that men are ignorant; who can boast that he is wise? but that men are strangers." It was with somewhat the same thought in mind that the idea of the Sydney Technical College Architectural Club was first conceived.

Young men pass through the college, and, having graduated, are strangers. Strangers to those who had gone before them, to those who went through with them, and to those who are coming after them. This state of things amongst students is reflected in the profession itself. We find that amongst themselves Architects are strangers.

So one of the ideas underlying the principles of the Club is the prevention of this "tragedy of our race." It is felt that if ex-students and students would continue to take an active interest in the Club activities they could create a condition, within the profession, at least, wherein men would no longer be strangers.

It is, perhaps, only the ex-students and students themselves, who can fully understand the difficulties which lie in the path of those who seek to attain this apparently simple ideal—the fact that the course is carried on entirely at night at once provides a very effective obstacle, as the usual intercourse among students, which formed such an invaluable part of our lives at school, is, in a great measure, lost to us. However, to remedy this, the Executive (among other things) are making every effort to arrange various functions, at which the students and ex-students will be enabled to renew old friendships and form new ones.

As the first really large social function of the Club, the Executive have arranged to hold a dance, to which all members, ex-members, students of the department, and their friends are cordially invited to attend. The function is to be held on Friday, the 15th of October, at Sargent's,

Market Street, City, where arrangements have been made that will ensure the pleasure of all attending. The executive are confident that an excellent response will be forthcoming, to justify their belief that the Club is very much alive, and anxious for social activities. An excellent orchestra, of course, will be a foregone conclusion, as in such an assemblage of critics, the absence of quality in this direction would be unpardonable. Endeavours of not too ostentatious a character will be made to impart an atmosphere of architectural surroundings, the usual balloons and streamers serving as a setting in which will appear bright spots of an architectural significance, such as caricatures, burlesques, parodies, etc.—in this direction, however, we would but engender anticipation, feeling sure that our efforts will be received with general approbation. Last, but not least, man's inner self will not be neglected, as an excellent light supper will be provided in the Dining Hall, the menu of which should delight the palate of even an epicure. Tickets may be obtained from all members of the Executive.

For some time there has been a feeling prevalent amongst the Members of the original S.T.C. Architectural Club that their badge did not sufficiently express the nature, objects and spirit of the Club—in fact, it was that a smaller and neater badge was desirable.

The Constitution of the newly-formed Club embodied the holding of a referendum on the question of the adequacy or otherwise of the existing badge. The result of the referendium revealed that the members were almost unanimously in favour of a new badge, and a competition has now been called for, and it is confidently expected that a badge perhaps more befitting to the Club will be evolved. The competition, which is open to members and intending members of the Club, closes on 9th September. Messrs. Norman Carter, G. Rayner Hoff and A. H. Martin, together with the President of the Club, Mr. F. Costello, have agreed to act as adjudicators.

NEWS AND NOTES

The conditions of the competition for the Joseland Prize will shortly be arranged. Mr. Joseland has generously offered to give a first prize of £4 and a second prize of £2.

Mr. S. H. Buchanan, M.I.A., has moved from 26 Hunter St. to new offices in Manufacturers' House, 26 O'Connell St. Mr. John K. Shirley has moved from the "Daily Telegraph" Building to Sirius House, 23-25 Macquarie Place.

Arrangements are being made, by courtesy of Dr. Bradfield, for a party of members of the Institute to visit the Metropolitan Railway. It will meet at the entrance to St. James' Station, Queen's Square, at 10 a.m., on Saturday, September 18th.

Members who have not yet received their Diplomas of Membership are notified that they can now be obtained at the office of the Institute. Members who have joined since December 1st, 1924, are asked to call and sign the Members' Register.

R.I.B.A. EXAMINATIONS

The annual examinations of the R.I.B.A. will be held in Sydney in February, 1927, provided that not less than three applications are received on or before October 1st. Theses must be in the hands of the Hon. Secretary not later than November 1st. Full particulars and application forms are obtainable at the office of the Institute.

A WREN MEMORIAL

The Council of the R.I.B.A. have decided to open a subscription list to enable members to contribute to the cost (estimated at £65) of placing a window in the Old Ashmolean building at Oxford as a memorial to Sir Christopher Wren.

NEW KNIGHTS

Two members of the R.I.B.A., Messrs. Herbert Baker and Mr. Andrew Thomas Taylor, had the honour of Knighthood conferred on them in connection with the Birthday Honours published on July 3rd. The former designed Groote Schuur and other buildings for Cecil Rhodes.

R.I.B.A. EXHIBITION

It has been decided that the drawings which were sent to the Wembley Exhibition, and which were afterwards stored at the R.I.B.A., will be hung in the space reserved for the Institute of Architects of New South Wales, in connection with the exhibition to be held by the Royal Institute of British Architects, in London, this year.

FIRST HALF-CENTURY

The Royal Victorian Institute of Architects completed its first half-century on August 21st. The first officers were Messrs. J. G. Knight, President, C. R. Swyer, Hon. Treasurer, T. J. Crouch, Hon. Secretary, and P. Kerr, A. Purchas, A. L. Smith, T. Watts and F. M. White, members of the Council.

SMALL HOUSE PLAN SERVICE

Although some time must elapse before the Small House Plan Service Bureau is in working order, the first applicant appeared recently at the office of the Institute. About fifteen architects have promised to supply plans on the terms announced at the meeting of the Institute held in July. Mr. B. J. Stone has been the first to send in a plan.

COMING HOME

Mr. W. Hayward Morris, the first diplomate of the Sydney Technical College to be awarded the Travelling Scholarship, expects to be back in Sydney in the middle of December. He has been working in the office of Mr. Frank Verrity, F.R.I.B.A., who gave him a month's holiday in order to enable him to visit Italy. During his stay in London he has made measured drawings of the Piazza building, Covent Garden, and other examples by Inigo Jones.

GEELONG STUDENTS' VISIT

Mr. Geo. R. King, F.R.V.I.A., Principal of the Gordon Institute of Technology, Geelong, and a party of his architectural students were entertained by members at the Institute on August 30th. The visitors lunched with Mr. H. E. Budden at the Rotary Club, on September 1st, and were afterwards shown over the new building being erected by David Jones Pty. Ltd. They also paid a visit to the School of Architecture at the University, and the School of Architecture, at the Sydney Technical College, the Harbour Trust, and the Master Builders' Association and other places.

THE VANBRUGH CENTENARY

The centenary of the death of Sir John Vanbrugh, architect and dramatist, has drawn generous tributes from the London press. Blenheim Castle, Castle Howard, and the west front of Greenwich Hospital were his most important works. He suffered much from the sarcastic wits

of his time. Dr. Evans, alluding to Vanbrugh's massive style, wrote:

*"Lie heavy on him, earth, for he
Laid many a heavy load on thee."*

He built, as a speculation of his own, a theatre in the Haymarket, which afterwards became the original Opera House, on the site of the present building. Here his admirable comedy, "The Confederacy," was first produced.

MANLY TOWN HALL

It was hoped that arrangements would be made by the Manly Municipal Council for a competition for designs for the new Town Hall, but so far nothing has been done. In a letter addressed to the Secretary of the Institute, dated August 26, the Town Clerk states: "I have to advise that arrangements for the holding of a competition have not yet received consideration, and it is not proposed in the near future to further the matter. The conditions of the competition will be advertised in the event of the Council deciding to proceed with the proposal."

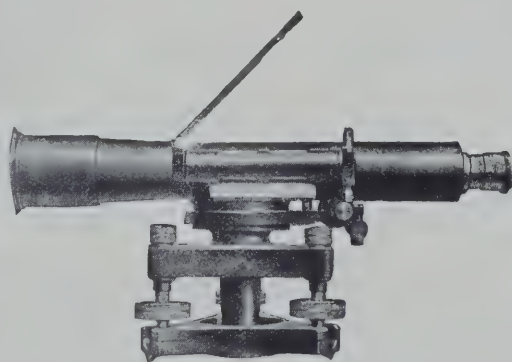
BRISTOL'S PHYSICS BUILDING

In an interesting account of his visit to England, in the *Sydney Morning Herald*, Prof. Holme, re-

marks that Bristol has been given nearly a million by the Wills' family, who are connected with the great tobacco undertaking which bears their name, and its new main building and tower, with the new physics building, represent the greatest in university architecture of recent times. No less than £200,000 was given by Sir Harry Wills and Sir George Wills for the development of physics, which will now have not only the finest pure science building in England (or the Empire), but also an endowment.

THE LAY-OUT OF HYDE PARK

The closing time and date for receiving designs for the Lay-Out and Beautification Scheme for Hyde Park, in connection with the competition arranged by the Municipal Council, Sydney, has been fixed for noon on Monday, November 1st. The Assessors will be: Sir John Sulman, F.R.I.B.A.; Professor Hook, President of the Institute of Architects of New South Wales, and Mr. W. G. Layton, Town Clerk of Sydney. The premiums will be as follows: For the design placed first, £150; for design placed second, £25. Full particulars regarding the competition may be obtained from the Deputy Town Clerk, Secretary to the Assessors, Town Hall, Sydney.



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THE REALISATION OF TOWN PLANNING AND ITS COST

*Being the 19th Lecture in the series of lectures delivered by Sir John Sulman
at the Royal Colonial Institute.*

THE cities and towns of the Continental countries of Europe have possessed, in greater or less degree, and for a long time past, powers of self-government, self-development, and self-extension that are far in advance of anything known to British or Australian communities. In Germany especially, City States with full and independent powers, date from the middle ages; and four (Hamburg, Bremen, Frankfurt, Lubeck) retained their freedom till 1866, and still possess many privileges. They have markedly influenced the whole conception of city government, as units largely independent of the State, and competent to organise industries, conduct municipal services, and own surrounding territory, either for future extension or the production of revenue. For instance, the Municipal Forest of Frankfurt was purchased from the Emperor at the end of the 14th century, and returns a considerable income.

In 1500 small towns and villages the revenue from the forest lands meets the whole cost of administration, and it is said that in several cases the lucky citizens even receive a small dividend. (Howe's European Cities At Work).

Town planning on city-owned land is simple, but where individual ownership exists, resumption, re-planning, and re-distribution is carried out by the city authorities. Formerly, one dissentient owner could hold up a scheme, but under the Lex Adickes, first introduced at Frankfurt, but since generally adopted, compulsory powers are given provided half the land owners consent. It should be noted that 40 per cent. of the resumed land may be taken for streets and open spaces, leaving only 60 per cent. for re-distribution. If the city gives the land for streets, private owners have to repay the value thereof as soon as they begin to build. As only the city authorities can sub-divide, land speculation in sub-divisions is checked, and the city extends in orderly fashion on pre-planned (Canberra) lines, with all the necessary services supplied. On the other hand, if the city does not supply building sites in sufficient quantity, it is evidence that the values of existing sites must rapidly increase and cause congestion. In Sweden, from the beginning of the 17th century, most new towns were laid out to a fixed plan by Charter from the King, imposing regulations for their well-being and providing town lands for the sustenance of the inhabitants. It was not till 1870 that

a town-planning law was passed by the Riksdag, owing to the rapid extension of many of the chief cities during the 'fifties of last century. It provided for traffic, wide streets, open spaces and tree-planted boulevards, commercial development by harbours, sites for public buildings, the regulation of frontages, and the preparation of a town plan.

It favoured, however, the chessboard type, neglecting contours, but has since been revised. In 1907, a further Act was passed to clear up difficulties that had arisen in practice, especially on questions of compensation. This Act is very comprehensive, and was largely used as a basis for the English Act of 1909. Among other things, it provides for "excess condemnation," and also for roads of access required beyond the town-planning area. Up to 1910 no less than 600 town plans had been made and approved.

In Italy communal administration dates from ancient times, and City States during the middle ages and the period of the Renaissance, were quite a feature of national life. Hence, with an inherent tradition of solidity and spaciousness in building work, an Act passed in 1865, for the compulsory acquirement of property for purposes of public utility, is quite in harmony with Italian thought, even though it undermines the rights of private ownership. Under it 10,000 inhabitants may draw up a town plan for reconstruction and a general site plan for extensions, to which all business owners must conform. In the extension plan the land needed for public roads must be given up by the land-owners without further formality. No special form of procedure is laid down in the Act, but indemnities are settled by arbitration, and the final plans are approved by Royal consent or Act of Parliament. Hence, to save time and cost, many town plans are settled by agreement, or expropriation by districts, thus entailing municipal ownership for a time, and re-sale under conditions that will secure the desired end. It is, however, admitted that the Act requires amendment, especially in clearing up the question of valuations and indemnities, and the securing to the communal authorities a larger share of the benefits accruing from the carrying out of any scheme.

France has for a long time favoured town planning in its cities, and the regulations concerning new streets and improvements are fairly compre-

hensive. The war, and resulting destruction of so many towns and villages in the north-eastern quarter of the country (at least, 2,600), has, however, necessitated the passing in March, 1919, of a compulsory Town Planning Act, known as the *Loi Corundet*, to deal with the problem. By the end of the year 400 plans had been approved by the local town councils and submitted to the Prefect of the Department, and it was estimated that fully 1000 more were in course of preparation. By 31st December 225 of the plans had been presented at public hearings, and sixty-five had been returned to the Prefect with all formalities completed. These plans were then placed before their respective Departmental Town Planning Commissions, but only four plans had been definitely approved, and three actually started. No doubt later records will show a great advance.

I am not in possession of statistics, but newspaper and other reports indicate that most have been rebuilt.

The better housing of the people in Great Britain was fostered by the Housing of the Working Classes Act of 1890; but it was not till 1909 that town planning was considered worthy of Parliamentary approval, when the Housing and Town Planning Act submitted by John Burns was passed. In this the dominant idea was the town planning of land in course of development, housing also occupying a very prominent position; but the re-planning of towns or built-up areas was hedged about with so many conditions that up to 1915 only six or seven schemes were actually in course of realisation, though a large number had been initiated. It thus became clear that some modification of the Act and regulations was necessary, if a town-planning scheme is to be made a practical success within a reasonable time, and an amending Act to that effect was passed in 1919. A consolidating Act was, I believe, passed last year, including Housing.

One of the fairest and most essential features of the Act is that, where damage is done to the property of a private owner, he is entitled to compensation; but where there is betterment, it is divided between the owner and the town-planning authority. All town-planning schemes are now subject to the Ministry for Health, and every town of 20,000 or over must prepare a scheme by 1929. Regional Planning, though not compulsory, has become a necessity, especially in congested districts, and already a considerable number of schemes have been prepared.

In the United States, where civic pride is much more developed than in Britain, because it is allied with Commercial advantage, the leading citizens of almost every city of any importance

form a Civic Planning Commission, and contribute the funds required for the preparation of a town plan by experts. The enthusiasm of the general public is thus aroused, and the way is made easier for the local authorities to commence the work of city improvement. Whether it will suffice to carry out to final realisation the many grandiose schemes prepared has yet to be seen, though much good work has been done. The difficulties to be encountered are many, due partly to the inherent weakness of municipal government in the States, and partly to public services being very largely in the hands of private companies.

During the last 10 years, in all the States of Australia and also in New Zealand, there has been a good deal of discussion on the necessity of obtaining a Town Planning Act, and Bills have been prepared, but the only one passed was in South Australia in 1920, and it applies to the whole of the State, except the city of Adelaide. Its most essential feature is the constitution of a Town Planning Department with a Government Town Planner as its chief, responsible to the Minister for Local Government and Town Planning. Attached to it is an Advisory Board consisting of the Government Town Planner (as Chairman), the Surveyor-General, a Civic Engineer, an Architect, and two representatives of Local Government bodies. The duties of the Government Town Planner are to plan all new towns or extensions of towns, to re-plan existing towns where required, and to deal with public reserves, special settlements, etc. Hence, all sub-divisions come under the control of the Government Town Planner. He keeps in touch with local Councils, each of which must appoint a Town Planning Committee. Appeals where disputes arise are settled by the Minister. This system is no doubt autocratic, but is not costly, and is apparently efficient. The Government Town Planner would, however, like to have power to pool sub-divisions and plan regionally, which he does not possess.

The Town Planning Bill introduced in 1919 and carried to second reading stage in the Legislative Assembly of New South Wales, is very different to the South Australian Act. The onus of preparing a Town Planning scheme is thrown on the Local Government Councils, who *may* prepare a plan, join another Council, or form a County Council, to prepare a scheme for a larger area. Like the S.A. Act, the Capital is excluded, as the original City of Sydney, possesses its own charter.

The Bill was very comprehensive, giving every power needed in a Town or Country Planning Bill, which are enumerated in 35 sub-sections.

Pooling and re-division of estates is one of them, but the approval of sub-divisions is left like

everything else to the initiating Council. A scheme when prepared was to be submitted direct to the Minister for Local Government, who would refer it to the Town Planning Board for advice as to approval, and who would hear any appeals before reporting to the Minister. If everything is then satisfactory, the scheme would be gazetted as an ordinance under the Act. If it was proved by any person interested that his property would be depreciated by the scheme he would be compensated, but if betterment was proved, it would be shared equally by the Council and the individual owner.

The Council's share was to be secured by a betterment rate over a term of years. The Town Planning Board was to consist of three experts paid by fees, to whom the Minister might add temporary members. The Town Planning Board might also report to the Minister in what places a Town Planning scheme was necessary, and if the Council concerned failed to prepare a scheme, the Board might do so and charge the cost thereof to the Council. During the second reading the Minister in charge abandoned the Commission of three experts, and substituted a Department of Town Planning, as in the South Australian Act. But if the Bill is re-introduced by the present Government, it is probable that the Board of three will be retained.

The Local Government Act of 1919 possesses a Town Planning section, of which I gave you the salient points in the previous lecture on "Regulations," when I mentioned that practically the only portion adopted in some of the local government areas, was that relating to districting residential areas. This goes to prove that Councils are not likely to carry out the provisions of a Town Planning Act, unless compelled to do so, as in England. We have, therefore, to consider whether it is advisable to adopt the S.A. example of a Government Town Planning Department and obtain immediate results, or wait till Councils are sufficiently educated to act on their own initiative. There is, of course, reserve power in the Board of three experts to carry out a Town Planning scheme where they consider it absolutely necessary. In any case, the Board's authority should cover the whole of the State, including the City of Sydney, if full efficiency is to be secured. A defect in the S.A. Act and in the N.S.W. Bill is that no provision is made for the compulsory setting apart of one-tenth of every new sub-division in a residential district for public use as a park or playground; or in some form of amenity that would enhance the attractions of the district. In small sub-divisions a tenth part of the value thereof might be substituted for a tenth of the area, to be utilized in

conjunction with others in the same neighbourhood. This would be no hardship on the owners, as it has been proved beyond dispute in the U.S.A. that the higher prices obtained more than compensate for the loss of area or its equivalent.

The reservation of open land between suburbs is somewhat more difficult. The least valuable for building would, of course, be selected; but when an arbitrary line is drawn, as it would have to be, between building and agricultural land, some compensation is due to the owner of the latter.

It might be met by a reduction of rates below actual values, when the town-planning scheme was promulgated, and maintained at that parity between it and building land for all time. Or it would be better still if it could be purchased at current agricultural values by the municipality, and leased at the full rentals obtainable, which, owing to its proximity to a growing market, would be likely to increase.

This method has the advantage that any improvements effected by the local authority would bring in an increased revenue, and the system might be extended to all kinds of Governmental expenditure. For instance, when a new line of rail or tram is run into a district the local speculator reaps most of the advantage, whereas it is only fair that the constructing authority should do so.

How this return may best be secured is quite open to discussion. Purchase outright before improvement, and re-sale afterwards, is the most fair and direct, but involves the use of a large amount of capital. A special betterment tax on the district, graduated according to the amount of benefit received, is another method much favoured, and occasionally put into practice; but it has the disadvantage of inability to assess the increment accurately beforehand, and hence, it is probable the full advantage would not be obtained. Too often, however, settlement precedes improvement, political pressure is brought to bear to supply the conveniences of town life to a special district, at the cost of the whole community, which is unreasonable.

The cost of regional planning is comparatively small, being confined to the preparation of a scheme, the carrying out of which may not be effected for many years. Then only the actual cost of construction has to be met without any resumption or compensation to vested interests, as all such must be in harmony with the scheme. The cost of the Manchester and District regional plan was met by a rate of one-tenth of a penny per pound for 3 years, but it must be remembered that the district is one of high values and includes about 20 smaller towns. The necessary data also

for a civic survey was largely available. It would be much more costly for a Greater Sydney where the necessary data is largely non-existent, and, in my opinion, can only be met by a general rate over the whole area, with the addition of a Government subsidy. In the interests of the Community at large, it ought to be initiated with the least possible delay, but the local government authorities and the State Government have yet to be convinced of its necessity, if the disabilities we now suffer in remedying the mistakes of the past are to be avoided in the future.

The greatest difficulties and losses, however, are met with when re-planning, instead of pre-planning, is needed. The resumptions of properties and businesses are then most costly, and, as it always means a less area to re-sell than was resumed, a loss is inevitable, even though the prices obtained pro rata be higher. To meet it to a certain extent, it has become customary to resume rather more property than is actually required for the improvement, so that the increase in value may be secured. This has been done in Sydney in the William Street scheme, and will reduce the monetary loss. This was possible legally, as properties full depth had a lane at the rear. In Martin Place, owners objected and won, but their property was not actually required for street purposes. The only cases where a profit may be made in re-planning, is where a district of low values is transformed into one of high values, as at Athlone Place, Sydney. This, at one time a slum quarter of narrow streets and tumbledown cottages, subject to flooding, has been transformed into a valuable industrial area; the net result being that, only thirteen years after the work was commenced, the value of the land balanced the cost of resumption. When the leases fall in the profit will be very large. A similar instance at Birmingham may be quoted as a profitable example. The main street of the city was cut through a slum quarter, and the resumed and re-planned area let on building leases, which, when they fall in, bring a considerable increase of revenue to the City Treasury.

The wholesale re-planning which is necessary in Sydney, at any rate, cannot, however, be carried out on these lines, as the funds that would be required are greater than the city could borrow or raise, even over a term of years. Hence, a cheaper method must be found, and as the im-

provement mostly required is street widening, the alignment method must be adopted, by which only the unimproved value of the site has to be paid for when the owners re-build. It would take a long term of years to complete any one scheme, and would not be very sightly while in progress, hence the immediate resumption of enough of the ground floor of existing buildings to form a foot-path, as described in Lecture XVII., is to be preferred.

The question of the valuation of resumed properties is a difficult one. The City Council of Sydney, unless it can make an amicable agreement with the owner, has to fight the question out in the Law Courts, which is costly. Elsewhere, the Valuer-General assesses the unimproved and the improved values, and the latter are the basis for resumption. This would be all right if the valuations were fair, but, unfortunately, the tendency of the Department is to overrate the unimproved value, on which rates are paid, and to depreciate the improved value, which is the basis for resumption. The Department contends that it is bound by the decision of a District Court Judge, that the Improved Capital Value must show a return of 12½%, which may be reasonable at the present time on a poor class of property, but is unreasonable for a better class, with high prospective value which is not taken into account.

An alternate to this method of valuation has been adopted by the City of Oporto, where each owner assesses the capital value himself, and at this price the City Council can resume and resell, thus preventing under-assessment. Over-assessment of values by the owner means higher rates and taxes, and thus is not to be feared. On the whole, this method should result in a fair average valuation, litigation is avoided, the owner satisfied, and the cost of an official valuer's department is saved.

Although the cost of town planning may be considerable, it pays financially in the better health, more economically conducted business, and the amenities of life experienced by town dwellers; resulting in a net saving of money, when the amounts now lost, or spent unnecessarily, owing to wasted labour, illness, loss of life, crime, and the other evils attendant on city life under present conditions, are taken into account. What it brings in increased enjoyment and happiness is, however, beyond computation.

INSTITUTE OF ARCHITECTS ORDINARY GENERAL MEETING HELD, SEPTEMBER, 1926

THE Vice-President, Mr. A. W. Anderson, occupied the Chair. Apologies were received from the President, Prof. A. S. Hook, Sir Charles Rosenthal, Professor Wilkinson, Mr. Weston and Mr. Harris.

The Minutes of the General Meetings held on 6th July and 3rd August were confirmed and signed.

The welcome of the Institute was extended to the new members, Messrs. A. S. Jones and F. M. Cowper.

The Chairman read a letter received from Mrs. H. Cooper Day, Jnr., expressing thanks and appreciation

at the memorial erected to her late husband as a tribute from the Institute, and informed the members that a full description of the memorial, which has now been completed, will appear in the October number of "Architecture."

The ballot for new members resulted in the election of Messrs. Sydenham A. Walter and Nicholas Charles Mackey.

The Chairman then extended a warm welcome to Dr. J. J. C. Bradfield, who gave a most interesting address, taking as his subject, "Some Notes on the Construction of the City Railway." The Lecturer said in part:—

SOME NOTES ON THE CONSTRUCTION OF THE CITY RAILWAY*

By Dr. J. J. C. Bradfield

INTRODUCTION

The City Railway will be the centre of a widespread system of electric railways serving the northern, eastern, southern and western suburbs within the metropolitan area, the existing steam railways will be electrified and a system of new electric railways brought into operation to serve suburbs not yet in railway communication with the City.

In 1914 the author was sent abroad by the then Minister for Public Works, the Honourable Arthur Griffith, to visit the Underground Railways throughout the world and to report on Sydney's Transit Problems. The five distinctive features recommended in my report have been adopted, viz.:—

- (a) The electrification of the suburban railways to be by overhead wire operating current at 1500 volts D.C.
- (b) Widening the structure gauge to provide for rolling stock 10ft. 6in. wide, so materially adding to the carrying capacity of the suburban railways and of the future electric railways.
- (c) A City Railway, partly above ground and partly underground, with bridge connection to North Sydney.
- (d) A system of fly-over crossings on the City Railway near its junction with the existing suburban railways whereby its train capacity would be increased over 30 per cent. and absolute safety ensured.
- (e) A system of suburban railways to serve all suburbs in the metropolitan area.

notwithstanding a Royal Commission on the Improvement of Sydney and its Suburbs had previously recommended a City Railway entirely underground, and another Royal Commission on Communication between Sydney and North Sydney had recommended Subway in lieu of Bridge connection.

The City Railway, as now being constructed, provides better station facilities for the travelling public, has a greater train capacity and is, at present-day prices, some two million pounds less than the wholly underground scheme, as submitted by the then Chief Commissioner for Railways.

The characteristics I wish to express in the design of the City Railway and Bridge are utility, strength, simplicity, beauty, and with these as the underlying motives, I have endeavoured to depict from Redfern to Bay Road the artistry and technique of the Science of Engineering in a manner worthy of Sydney, some day to be the Queen City of the Empire. The building materials are steel, concrete, brick and stone.

This picture gives a perspective of Sydney and suburbs and illustrates clearly the part the Sydney Harbour Bridge and proposed electric railways will play in the development of Sydney. Between Botany Bay and the Hawkesbury—the Greater Sydney Area—about one million people reside: within twenty years, at the present rate of expansion, this population will have reached the two million mark. The lines in black show the existing steam railways—those within the suburban area, i.e., between the Hawkesbury and Nepean Rivers and the Coast, are to be electrified.

The white lines show the proposed electric railways, viz.: the City Railway and connecting railways via the Bridge to Bay Road Station, the proposed railway North Sydney to Mosman, via Manly and Narrabeen; the Eastwood-St. Leonards Railway, via the Bridge to the City, which also provides for traffic from Eastwood to Manly and Narrabeen direct; a connection from the Milson's Point Railway, near St. Leonards, will also make possible a direct service from that railway to Manly; the Gordon to Narrabeen Railway, railways to the Eastern Suburbs, Tempe to East Hills Railway; and a new railway midway between the existing railway to Strathfield and the Harbour connecting with the City Railway at Town Hall Station, with the main line at North Strathfield and with the

**Dr. Bradfield exhibited over fifty lantern slides to illustrate his remarks. It is to be regretted that space will not permit us to reproduce them here.*

Eastwood-St. Leonards Railway and having spur line extensions to serve Balmain, Abbotsford and Ryde.

The City Railway and the Eastern, Western and Northern Suburbs connections are shown by this slide. There will be six stations, each 520 feet long, located approximately at equal distances apart. Central Station will be a new structure east of the existing terminal and above ground. Town Hall Station, providing for six lines of railway and 72,000 passengers per hour in or out, will be a two level station located in front of the Town Hall, below George Street, the City's busiest thoroughfare; Wynyard Station, a two level station of the same capacity as Town Hall, located below Wynyard Square and York Street, near the centre of the Banking and Wholesale Business area; Quay Station will be a combined railway and ferry building, arranged with the railway station above the ferry jetties; St. James' Station, under Hyde Park, near St. James' Square, will be quite close to the Law Courts, Parliament House, Theatres and many Government Departments; whilst Museum Station is located under the South-west corner of Hyde Park, and near the centre of a great retail shopping area.

Provision has been made for the future construction of an inner loop to traverse the heart of the city from St. James' Station, thence under Macquarie Street, with a station under O'Connell Street, another under Pitt Street, between King and Market Streets, and thence to Town Hall Station on the Western side. From Town Hall Station the new tracks will follow the route of George Street West with a station under Central Square, another near the University, and continuing in a westerly direction will serve the suburbs of Balmain and Abbotsford and connect with the Main Line at North Strathfield, also with the Eastwood-St. Leonards Railway. Another projected cross city connection from the Bridge will leave the western side of the City loop at Wynyard Station, crossing the City, with a station between Pitt and Castlereagh Streets, near Market Street, and continuing under Wentworth Avenue, where there will be a station, to another station at Central; the line will then run parallel to the existing track to Redfern and thence to Tempe and East Hills.

The route mileage of the City Railway from Redfern back to Redfern is 5 miles 22 chains and the track mileage 17 miles 69 chains; the sharpest curve is 500 feet radius, but generally the curves are 20 chains radius; the limiting grades are fixed at 1 in 30, with the load and 1 in 40 against the load.

Based on a 30 second station stop, an acceleration of $1\frac{1}{2}$ miles per hour per second, and a deceleration of $1\frac{1}{2}$ miles per hour per second, and a maximum speed of 35 miles per hour with the continuous overlap system of signalling and automatic train stops, the train capacity of each track is 36 trains per hour, which can be increased to 42 trains per hour by the introduction of a system of speed control.

The time of journey from Central Station around the loop back to Central, including all station stops, will be 11 minutes 38 seconds, the distance being 3 miles 63 chains.

The construction of the first section, about to be opened to traffic, from Redfern to St. James, a distance of 1 mile 37 chains, will shortly be described.

This construction will bring two electric tracks into the City as far as St. James', which will be a temporary terminal Station. Two lines of railways take off from the existing railway system to the north of Redfern Station, adjacent to the Wells Street overbridge

and run parallel to the existing railway as far as Cleveland Street, where the tracks curve to the east, and, by means of the fly-overs, traverse the eastern side of the existing railway yard, to the new Central Station. This open-air station is situated about four feet above the existing platforms to enable the railway to pass over Campbell Street without necessitating closing that street. Continuing northwards the two tracks cross Eddy Avenue on a reinforced concrete girder bridge, then traverse the eastern side of Belmore Park, cross the Hay and Campbell Street Bridges, then pass in tunnel under Goulburn Street, reaching Museum Station at a level of 45 feet below the surface. The two lines then continue under Hyde Park to St. James' Station, which is situated at the extreme northern end of the park. The tracks extend beyond the station under Macquarie Street, to allow for shunting the longest train, during the time St. James' is operated as a terminal station.

In October, it is anticipated that the whole of the trains necessary for working the Illawarra Service between Sutherland and the City will be electrified, and until the railway is completed between Central and St. James', these trains will operate to and from the New Central Station.

CLEVELAND STREET BRIDGE

The alterations to Cleveland Street Bridge necessitated the construction of three additional double track arch spans, providing 6 additional tracks to Central Station, making 14 tracks in all. The main water supply for Sydney and the Eastern Suburbs, in pipes of 36in. and 42in. diameter respectively, is carried under the tracks at this point, and before work could be proceeded with on the foundations for the additional arches, it was necessary to carry the pipe tunnel well past the site of the new eastern abutment. This work was undertaken by the Metropolitan Water, Sewerage and Drainage Board. The tunnel was 11ft. wide, with side walls and segmental arch in brick, supported on a heavy concrete floor. Access to the pipes was afforded by a new man-hole and chamber constructed on the eastern side.

The new bridge arches have a clear span of 25ft. 6in., with a central height of 19ft. and a width of 139 feet; a segmental ring of four rows of brickwork, with an inner radius of 16ft. 6in. and a rise of 6ft. Concrete backing is laid over the haunches to a depth of 4ft. 6in., and sloped back to the crown of the arch. The roadway is of wood blocks, laid on a bed of 6in. concrete over the filling, the road surface being 1ft. 8in. above the top of the crown.

The single track arch had to be demolished and reconstructed as a double line arch span without interrupting the railway traffic below or the tramway and vehicular traffic above, whilst two additional double track arch spans have been built.

The picture shows a $\frac{3}{4}$ yard Ruston Proctor Steam Navy excavating the material preparatory to extending the Bridge.

This picture shows the Cleveland Street Bridge under construction.

In the arch rings the bricklayers laid an average of 1100 bricks per man per day, whilst in the spandrels, between the arch rings, the daily tally was 2000 bricks per man per day. The cost of the brickwork laid in 2 to 1 cement mortar was 68/8 per cubic yard, bricks costing 75/- per 1000.

At present eight tracks, run from Redfern to Central, an up and a down track alternately, which means that a train leaving Central often has to cross the tracks, bringing trains into Central, and these trains have to be stopped until the out-going train is clear of the danger zone. To obviate this, the four tracks

leading into new Central Station will be raised above the four tracks leaving the station, and if a train leaving or entering the station has to cross the track of a train proceeding in the opposite direction, it can do so without holding up traffic in the opposite direction.

When completed this work will contain $4\frac{1}{2}$ million bricks, 8,000 cubic yards of concrete, 1,200 tons of steelwork, and 100,000 cubic yards of materials will have been excavated.

CENTRAL STATION

When the City Railway is constructed and the electrification of the suburban railways completed, the whole of the suburban railway traffic now terminating at Central Station will pass through the new station into and around the City. There will be two entrances to the station, one at either end.

The four platforms served by stairways from subway concourses at the north and south ends are each 520 feet long with a maximum width of 33 feet. The roofs of the two platforms completed are of steel supporting a reinforced concrete slab. The roof columns are spaced 38 feet centres in pairs, 12 feet apart, and make practically no obstruction to the traffic on the platforms. A 3-ton electric goods lift is provided on each platform to convey passengers' baggage to a 10 feet baggage subway, which connects with the existing baggage subways at Central Station, soon to be the steam long-distance terminal station.

The stairways leading to and from the platforms and the northern concourse have a width of 7ft. 6in. and a total rise of 19ft. 6in.; the entrance and exit stairways, and subways are independent of each other so as to avoid interference between passengers moving in opposite directions—separate entrances and exits are one of the special features in the stations on the City Railway. The northern concourse is 307ft. 11in. long, with an inside width of 55½ feet and is immediately under the tracks. An entrance 30 feet wide leads down from Chalmers Street on an easy grade of 1 in 13.7, while a western entrance gives direct communication to the concourse from Eddy Avenue. A 12ft. stairway in the western corner of the concourse connects the old station with the new.

The entrance and exit subways to the platforms are on the southern side of the concourse, leaving a clear way of some 43 feet for passenger movement. The whole structure is built in reinforced concrete, the side walls, columns and roof being designed to take the heaviest train loads. Columns 2 feet square are spaced at 15 feet intervals with heavy girders connecting them together, the girders are at right angles to the side walls, the transverse beams with a span of 14 feet are spaced at 5 feet centres and support the 9½in. and 6½in. roofing slabs.

The slabs are 9in. thick under the live load and 6½in. thick over bays carrying dead load only. The structure, as far as possible, was built monolithic; where construction joints occur, precaution was taken to ensure continuity of the work.

The greatest load on any one column is 114 tons, giving a unit stress of 640 lbs. per square inch compression. The footings were carried down to rock and the bases made 4 feet square, giving a bearing pressure of 7½ tons per square foot.

The side walls, designed as fixed beams, have a thickness of 15ins. and are reinforced with ¾in. vertical bars at 6in. centres. To provide for expansion and contraction due to temperature, ½in. bars were placed horizontally at 9in. centres on the inner face and 18in. centres on the outer face.

The concourse at the southern end of the platforms is much smaller than at the northern end, it connects the two 12ft. subways which give ingress and egress from the platforms, to the reconstructed Devonshire Street Subway. It will be constructed in reinforced concrete of a design similar to the northern concourse. Both concourses receive considerable natural light from large prism vault lights in the roof, so minimising artificial lighting. The side walls, subways and columns are finished with cream tiles to a height of 8 feet and the floors asphalted 1½in. thick over a 6in. concrete base.

The lost property office, built over the western entrance, has a length of 78 feet and extends the full width of the concourse. The roof is of reinforced concrete, the side walls of brick, the outer face wall of sandstone extends to concourse floor level and makes a feature of the western entrance from Eddy Avenue.

The sewerage from Central Station presented no unusual difficulties. A 6in. pipe was used for connecting up with the existing 9in. sewer, alongside the old station, which in turn discharges into the Bondi sewer below Eddy Avenue.

EDDY AVENUE BRIDGE

The tracks from Central Station across at an elevation of 21 feet above Eddy Avenue on a reinforced concrete girder bridge consisting of 3 roadway and 2 footpath spans. The reinforced concrete is faced with sandstone masonry. The bridge piers and abutments are constructed parallel to the kerb line on the northern side of Eddy Avenue, and the distance to the centres of piers and faces of abutments measured from this kerb line. The two footpath spans have a clear width of 12ft. 3in., and the three roads spans 36ft. 2in.

The intrados of the span is elliptical in section, the bridge being constructed as a series of continuous reinforced girder ribs carrying a reinforced concrete floor. The ribs over the roadway spans are spaced at 7ft. 8in. centres, with a width of 25in. and have a depth over the piers of 9ft. 7½in., diminished to 3ft. at the crown. Continuing over the footpath spans the ribs are securely anchored to the abutments. The reinforcement at the crown of the large spans consists of 16 one inch diameter insteel bars, giving an area of 12.57 square inches. At the centre the maximum stress is 501 lbs. per square inch in the concrete and 17,900 lbs. in the steel. At the haunches the stresses are 490 lbs. and 18,000 lbs. respectively.

The piers and abutments are of ordinary concrete faced with masonry, with sets of bar reinforcement under the seating of the girders for anchorage. The piers have a width at the base course of 8ft. and the abutments of 9ft. 4½in., the distance to the springing line of the roadway arches from top of pier foundations is 11ft. 8in.

The general vehicular traffic and traffic on the two tramway lines which pass under the centre span, is at all times heavy, the centring and supporting framework for the concrete ribs and flooring had to be designed to give the minimum of interference to traffic. A supporting timber trestle was erected close to the piers in each span and rolled steel joists at 7ft. 11in. centres placed in position, upon which the centring of the arch was erected. Thus a clear roadway was left in the centre arch, while the supporting frame along the centre of the side spans was really no obstruction, but helped rather in routing traffic. The erection of the heavy rolled steel joists in the centre span was carried out after midnight on Saturdays, as no interruption to the tramway service was permissible. The 16 heavy beams, each 36ft. long, were swung into position in 70 minutes. Two cranes at road level,

one each on the off side of the pier, lifted the beams from the truck and placed them over the trestles, and the same procedure was adopted in the side spans with one crane. A hole was left in the floor slab at each bay for dismantling the joists after the arch was poured. The crane working from the bridge deck had a lifting chain passed through the hole in the slab and so lowered the beams on to the waiting trucks. This operation was also performed at night, the tramway trolley contact line was cut and the new troughing with trolley line fixed to the underside of the arch.

After the placing of the girder and slab reinforcement, the sandstone masonry facing was constructed on the centring and the concrete was poured over the three roadway arches up to the construction joints over the outside piers. The electric cable ducts were placed on each side of the bridge and the necessary provision made for manholes and posts for the overhead structures.

The bridge floor was waterproofed with $\frac{3}{4}$ in. mastic asphalt and graded to downpipes taken under the floor, then down the piers of the footpath spans to discharge into the road gutter.

ELIZABETH ST. RETAINING WALL

This gravity retaining wall, extending from Eddy Avenue to Hay Street, is built of ordinary concrete with a facing of sandstone (rockfaced) masonry, supported on concrete piers taken down to rock. The wall has a total length of 754 feet and a maximum height of 35 feet from top of parapet to bottom of first course. The face of the wall is battered to 1 in 48 and the buttresses spaced at intervals of 59ft. 7 $\frac{1}{2}$ in., with a top width of 5ft. increasing to 6ft. 9 $\frac{1}{2}$ in. at the base. The concrete backing is 10ft. thick at the base course, stepped up in 3ft. courses to a top thickness of 3ft. 9 in. Weep holes are provided every 25 feet and the hand-packed rubble backing has a thickness of 2 feet, thus ensuring a free drainage.

The maximum tension in the back of the wall was 31lbs. per square inch at a height of 24 feet, while at the base of the wall a pressure of 31lbs. compression per square inch was obtained with no tension.

The foundations of the wall consist of segmental arches between piers taken down to hard rock, which was found at an average depth of 27 feet below surface level. The span of the arches is 18ft. 3 $\frac{1}{2}$ in. and the thickness of the piers 7ft., the total width of the foundation being 16ft. Where the wall crosses the Bondi sewer, which lies at a depth of some 12ft. below surface, special provision was made in the arrangement of the foundation piers. An alteration had also to be made to the centring of the piers on the opening up of a volcanic dyke some 20ft. wide, which passed under the wall midway between Eddy Avenue and Hay Street. Borings disclosed no bottom in the decomposed basalt so the dyke was bridged over from piers constructed on either side.

This picture shows the construction of the shafts 25ft. centres and about 27ft. deep to rock for the piers of the retaining wall. The foundation for the wall is arched over from pier to pier.

It was contemplated to construct a brick retaining wall on the western side of the embankment traversing Belmore Park. Borings put down along the site of the foundations for this wall, approximately parallel with the tramline from the Central Station to Castlereagh Street, disclosed the fact that the volcanic dyke found on the Elizabeth Street side of the embankment continued across and followed the general direction previously indicated, the width of the dyke, however, had increased considerably.

To carry across this dyke would have added considerably to the cost of the wall foundations, the estimate for which was already high owing to the depth required to reach hard rock. It was decided, therefore, to omit the brick retaining wall on this western side and to substitute a hand-packed stone wall pitched on a slope of 1 in 1. At the foot of this wall creepers specially selected for their clinging properties have been planted. Ivy, Virginia Creeper, Climbing Fig, and Bignonia Tweediana, often a mass of yellow bloom, so in a few years' time, this rubble wall will be hidden by a wealth of foliage, green and variegated, interspersed with golden yellow flowers.

This slide shows the wall completed. The sandstone used in facing the wall was obtained from the Maroubra State Quarry. It is almost white when first quarried, but the oxide of iron soon colours it to a warm brown.

Up to date, upwards of 132,000 cubic feet of sandstone masonry facing to the retaining walls and bridges have been set, the rock faced masonry, including all charges, costing 8/3 per cubic foot, and the chisel dressed sandstone costing 12/2 or 19/1 per cubic foot according to the ornamentation.

This picture shows the Hay Street and Campbell Street Bridges completed. Hay Street is a reinforced concrete arch of 8ft. 8 in. clear span, faced with sandstone masonry. The parapet wall shown will be the type adopted throughout the City Railway and the Sydney Harbour Bridge. This Bridge is a fine example of a reinforced concrete arch, masonry faced, and in the above-ground portion of Sydney's City Railway I have so designed the work that there will be no uglification of the City.

This picture shows the steel reinforcing bars in position at the Hay Street Bridge prior to pouring the concrete.

This picture shows the pouring of the concrete in the Hay Street Arch; three concrete mixers were used. The sandstone masonry facing was first constructed on the centring, the steel reinforcing bars placed in position and the concrete then poured. One thousand and fifty (1,050) cubic yards of concrete were poured in 5 days, the actual working time being 32 hours.

This picture shows the Hay Street Bridge completed. Diagonally along Elizabeth Street, between Goulburn Street and Liverpool Street Station, the City Railway is in twin tunnel. The top of the tunnel roof is about 10ft. below the surface of the street, near Liverpool Street, and 1ft. 9 in. below, near Goulburn Street, but the tramway and vehicular traffic has been maintained undisturbed during construction. Three small tunnels were first driven, in which the brick side walls were built up to springing level of the arch roof. The space for the arch roof was excavated in three feet lengths, and steel forms made of 80lb. rails were seated on the side walls and poling boards driven from steel form to steel form, which were spaced three feet apart. The miners can be seen excavating the material with picks, which material, fortunately, was fairly soft, consisting of compressed sand, clay and shale; air-driven diggers were also used. The excavation was carried about four feet in advance of the last steel form placed, each succeeding form was placed three feet beyond the last and the poling boards driven, so that the ground above was always held secure.

This slide shows the concrete arch in position. From the steel rails shown in the picture, steel angles, carrying lagging, were hung, to form the space for the concrete arch. The concrete was mixed outside the

tunnels, conveyed in skips along the narrow gauge railway track, and shovelled and packed into position. When the concrete was set the steel angles and lagging were removed. The workman is standing on the dumping of earth which was removed when the concrete arch roof was completed for the full length of the tunnel; this earth was left so as to form a convenient working platform from which the steel rails and angles could be erected and the concrete placed for the arch ring.

MUSEUM STATION

This picture shows the commencement of the City Railway at Liverpool Street on February 20, 1922. Modern excavating machinery had been ordered, but, as this plant was not landed in time for the commencing the excavation, plough teams and tip-drays had first to be employed, followed by steam shovels and motor lorries for the disposal of spoil.

Situated at the southern end of Hyde Park, this station is served by the two tracks, Down City East and Up City East, at a rail level of 50.00 ft., being 45 ft. below the surface. As will be seen from the plate, the roof consists of a single reinforced concrete arch of 48 ft. span, with a total length of 520 ft. Platforms with a width of 12 ft. 6 in. on either side of the arch are served by 8 ft. wide longitudinal subways, located on the outsides of the main arch and leading to concourses at each end of the station. The main concourse is at the south end, giving entrance and exit to the corner of Elizabeth and Liverpool Streets, while the smaller northern concourse serves Elizabeth Street at a point opposite Bathurst Street. Separate ingress and egress subways, stairways and barriers are provided, the incoming passengers enter at either end of each platform, whilst the outgoing passengers have four openings, intermediately located, for exit.

At the south end, in addition to the above entrances, a system of subways is provided, giving communication to the station from the footpaths adjacent to the three buildings on the opposite sides of Elizabeth and Liverpool Streets, whilst the large 12 ft. subway also gives direct connection to Mark Foy's Store. This arrangement will be of the greatest convenience to the public, as the necessity for crossing the streets at surface level at this exceedingly busy corner is obviated.

In the design, provision has been made for handling the largest number of passengers that the lines are capable of carrying. Concourses, passage ways, stairs, barriers and all offices have been, therefore, kept of ample proportions and designed for this maximum traffic.

The concourse construction is of steel beams encased in concrete. The southern concourse has columns spaced at 14 ft. centres or less, of rolled steel joists set in concrete, having a total height from floor level to underside of roof of 14 ft. 6 in. The roof joists connecting the side walls are spaced 5 ft. apart and support a reinforced concrete slab of varying thickness. Side wall columns being centred at 5 ft., are framed with channel bars and held in position by $\frac{1}{2}$ in. diameter tie rods, the concrete wall being finished to a thickness of 14 in. The subways have an inside width of 8 ft., with a clear height of 10 ft. 6 in. to the underside of the semi-circular roof. The walls and roof have a uniform thickness of 24 in. The main entrance and exit subways to the concourses are 10 ft. wide, with flat top construction and side walls of rolled steel joists set in concrete, having a thickness from 12 to 14 inches.

The rise from platform level to southern concourse is 17 ft. 4 in. and from concourse level to street, 17 ft.,

making a total rise of some 34 ft. 4 in., while the northern end is somewhat greater, having a rise of 38 ft. 4 in. to the level of footpath in Elizabeth Street. The main arch, with its span of 48 ft. clear, and height above rail to underside of crown of 26 ft., is supported on abutments having an average width of 15 ft., with the springing line of the arch 14 ft. above rail, giving a rise of 12 ft. to the arch. The intrados of the arch is segmental to a radius of 30 ft., with the extrados set to a radius of 34 ft.

The thickness of the arch ring at the crown is 21 in., reinforced top and bottom with $\frac{3}{4}$ in. diameter bars at 9 $\frac{1}{2}$ in. centres. The maximum compressive stress produced in the concrete at the crown, from the dead load was found to be 590 lbs. per square inch, which was increased some 60 lbs. per square inch by stresses due to a variation of 20 degrees temperature and arch shortening, making the total stress in the concrete 650 lbs. per square inch.

The thickness of the arch ring at the haunches was 2 ft. 6 in. A construction joint was made between the abutment and the arch ring at a point 3 in. above the springing line of the arch, the joint being normal to the arch thrust. The maximum pressure on the abutment foundations, which are on poor sandstone, is 11 tons per square foot.

During the progress of the work, considerable quantities of shale and pottery clay were excavated and sold, also bands of red oxide of iron, which was used for colouring roofing tiles. A seam of coal, about $\frac{1}{4}$ in. thick, was also found.

The falsework for supporting the arch was then erected and the reinforcement placed in position. The concrete was poured in sections of 30 feet per day, care being taken to ensure a good construction joint. The expansion of the arch ring was provided for by the placing at intervals of expansion joints, a detail of which is shown by the picture. Six of these joints were placed in the total length of the station, at distances of 76 ft. 8 in. to 137 ft. 8 in., and have given entire satisfaction.

The whole of the roof is waterproofed with a layer of asphalt $\frac{1}{2}$ in. thick and protected with bricks laid in cement mortar. The earth filling was then placed in position and the surface of the park restored. The waterproofing of the subways and concourses was also carried out in the same manner. Both concourses have installed a complete system of ventilation, which ensures a change of atmosphere every 10 minutes in the concourse and offices and every 5 minutes in the lavatories.

This picture shows the main excavation for Museum Station nearing completion. The total quantity, including subways, excavated is 107,902 cubic yards.

This picture shows the double track tunnel leading northward from Museum Station, also the steel reinforcement bars in position prior to the concrete being poured to form the reinforced concrete arch roof over this Station.

This slide shows the reinforced concrete arch spanning Museum Station being poured.

This view shows Museum Station as it will appear when complete. The roof consists of a single arch span, there are two side platforms with a double line of railway between. The incoming passengers enter at either end of each platform, whilst the outgoing passengers have four openings for egress.

After leaving the north end of Museum Station the trains will enter a double track tunnel, 35 feet wide in the clear, which branches into two single line tunnels as shown. The tunnel excavation cost 30/- per cubic yards, including the disposal of spoil. Holes 6 inches in diameter were bored from the surface of

the Park where the concrete was mixed and lined with steel sheeting; the concrete was poured down this hole, spouting to where required and place to form the arch rings.

This slide shows Twin Tunnels under construction in open cut between Liverpool Street and Park Street; the concrete was mixed on the side of the cut and spouted in place as shown. The slide shows the centre wall being poured and the framing in position for the two side walls.

Beneath Hyde Park will be three stations, at Liverpool Street, Oxford Street and St. James. Two City Railway tracks will run through Museum to St. James Station and two Eastern Suburbs Railway tracks through Oxford Street Station to St. James Station where the two Eastern Suburbs tracks connect with the City loop. The Eastern Suburbs tracks will occupy the centre portion of St. James Station and to obtain this position, they will have to fly over the Down City East track under the Park as shown.

North of Park Street the railway was connected by an open cut; the picture shows two steam navvies excavating in the open cut.

This picture shows the "Bucyrus" dragline excavator. It has a jib 60 feet long and $1\frac{1}{4}$ yard dipper. The machine weighs 110 tons.

ST. JAMES STATION

This station is located at the northern end of Hyde Park, with entrances and exits from Elizabeth Street, opposite Market Street, also from St. James Road, in Queen's Square at the top of King Street.

With a rail level of 56.00 the station is some 40 feet below the surface of the park.

The two island platforms are served by four tracks, the Down City and Up City East lines occupying the outside roads, while the two inside tracks serve the Eastern Suburbs.

The outside walls of the station at platform level are 108 feet apart, the roof being supported by four 25 feet 6 inches reinforced concrete arch spans, carried on reinforced walls of 24 inch thickness. The construction with the leading dimensions of these arches, centre and side walls is clearly shown by the picture.

The two island platforms have a width of 28 feet with an overall length of 520 feet and are served by stairways to the concourse.

One 12 feet stairway from the concourse to each platform gives access for the incoming passengers, while two 6 foot stairways on each platform carry the outgoing passengers to the concourse floor, a rise of 16 feet 6 inches.

The concourse situated in the centre of the station, has a total width of 108 feet 6 inches and a length of 108 feet 6 inches, with a clear height from floor to roof panel of 16 feet to 18 feet, and is constructed with steel columns and girders encased in concrete with reinforced concrete floor and roof panels.

Separate entrance and exit subways are provided so that the incoming and outgoing passengers do not meet and thus avoid that mutual interference which a common entrance and exit would undoubtedly have. The subways are in twin construction, with plain concrete walls and reinforced concrete roof, with a clear width of 10 feet to each subway and a height of 7 feet 10 inches to the springing line of the low sprung arch, which has a thickness of 12 inches, the subways lead to an easy flight of steps giving access to the street.

The total rise from platform level to the St. James Road entrance is 36 feet and that to the Elizabeth Street entrance 17 feet 6 inches.

This station is designed to serve terminating, as well as through traffic, being the junction station for the Eastern Suburbs connection, and provision has been made as in all stations, for handling the maximum number of passengers that is ever thought likely to be realised.

The four main arches spanning the station have a height from rail level to underside of crown of arch of 25ft. 9in., and support something like 14 feet of fill. The arch has a thickness of 14in. at the crown and 21in. at the haunches, with $\frac{3}{4}$ in. diameter main reinforcement bars at 12in. centres top and bottom. The distributing bars placed longitudinally are $\frac{3}{4}$ in. diameter and spaced 24in apart on both the intrados and extrados.

All outer walls, the main arches, roofs of the concourse and subways are completely waterproofed with a layer of $\frac{1}{2}$ in. mastic asphalt, this covering in turn being protected by a layer of brickwork in cement mortar.

This picture shows a commencement being made with the excavation at St. James' Station, in Hyde Park, on Anzac Day, April 25th, 1922.

This slide shows the open cut excavation for St. James Station: a "Bucyrus" dragline, two steam navvies and a 5-ton electric crane are shown at work. In 26 consecutive days the dragline removed 26,000 cubic yards, the working day being eight hours. The excavation is now complete, some 128,446 cubic yards of material have been removed.

This picture shows the excavation for St. James Station completed; for the single line tunnels, the full section has been taken out; in the double line tunnel the bottom heading and the full section for the arch have been excavated.

This is another view showing the concrete arch ring and steelwork of the concourse.

This slide shows a view of St. James Station as it will appear when completed, there are four tracks serving two island platforms; the two outer tracks are the City Railway tracks, and the two inner tracks are the Eastern Suburbs tracks.

STATION FITTINGS AND FINISH

The interior walls of the stations and subways are finished with a hard glazed tile to a height of 8 feet or thereabouts. Above this the concrete is treated with two coats of mill white water paint sprayed on, giving a hard white surface which is also continued over the ceilings.

The cream tiles with top and bottom moulding courses are common to all stations, but the colour of the moulding tiles will be different at the various stations, which should assist the passengers in a rapid realisation of their location. The colours chosen for the Museum and St. James' Stations are red and green respectively, while the Central Station concourse, which is not observable from the trains, is also decorated with the green tile moulding. The lavatory walls are entirely covered with white glazed tiles, with neutral tint mouldings.

The concrete floors of the concourses and subways are covered with a continuous layer of mastic asphalt $1\frac{1}{2}$ in. thick.

The lavatory floors are covered with Terrazzo paving light grey in colour, and having a finished thickness of $\frac{3}{4}$ in. after grinding. Waiting rooms and station offices have a floor surface of magnesium composition, some 3in. thick, of a light brown colour and pleasing appearance.

To ensure a non-slip, long-wearing tread for the stairways, a mixture of carborundum, sharp sand and

cement, in the proportion of one, one, two, was laid over all treads and landings to a thickness of $\frac{3}{4}$ in. All steps have a 12 in. tread with a 6 in. rise, while the extreme height between floor and landing, or the rise of any one flight of steps, never exceeds 8 ft. 6 in. The platforms at Central Station have a floor covering of tarred metal, well rolled and worked to a smooth surface, while the platforms in the Museum and St. James Stations, being under cover, are finished with Bituminous asphalt 1 $\frac{1}{2}$ in. thick, already referred to as the floor covering for the concourses.

The station offices have been designed to give the maximum convenience to the travelling public and the appurtenances are of the most modern character. Telephone facilities are provided throughout for the general public as well as the railway staff.

The lighting of the stations is so arranged that a failure of two separate sources of supply is necessary to effect a complete shut down in the lighting; these sources are represented by high tension ring mains traversing the system and feeding the lighting reticulation through two independent transformers; while a constant supply of 10 per cent. from a 25 cycle main, would give sufficient light to the stations in case of failure of the main supply.

A complete water supply system has been installed throughout all stations. In addition to the ordinary supply for the lavatory blocks in each station, provision has been made for hosing down all concourses, subways and platforms, besides fixing drinking fountains in the most suitable locations.

TRACKWORK

It was specially desired to lay down a road bed which would need as little maintenance as possible and at the same time provide the essentials of a first-class track. At the present time, it is intended to lay down four tracks as far as Central Station and two tracks from there to the City Terminal at St. James.

Ironbark timber sleepers in ballast have been adopted for the road bed in the open. The road bed in the tunnels is similar, with the ballast laid directly over a concrete base on the floor of the tunnels.

In order to minimise the presence of dust in the underground stations, as well as reducing the track maintenance, it was considered desirable to introduce a concrete road bed, with timber sleepers embedded therein. The sleepers are set into concrete, which will be kept 1 inch below the flange of the rail.

The sleepers are of ironbark—9 inches by 5 inches by 8 feet long, with 9 inches wide sleeper plates, 9 $\frac{1}{2}$ inches long at all bearing points.

TRAFFIC & POWER REQUIREMENTS

The electrification of the inner zone suburban railways will eventually embrace, besides the City Railway, the Main Suburban Line to Parramatta, the Illawarra Line to Waterfall, the Bankstown Line, the Strathfield-Hornsby Line to Hornsby, and the Milson's Point Line to Hornsby, a total of some 200 track miles.

The Chairman thanked Dr. Bradfield for his most interesting and illuminating address.

A vote of thanks was proposed by Col. J. H. Hurst, seconded by Mr. W. A. Nelson, and supported by a numbers of members and visitors, all of whom expressed their appreciation of the opportunity both of hearing the lecture and also of joining the party who will visit the City Railway on the 18th instant.

Mrs. Taylor gave notice of motion to be discussed at the October meeting, as follows:—

"As certain architects in Sydney will not employ draftsmen who have not been abroad, and the annual

Excluding the Milson's Point Line, it is anticipated that 144 trains, carrying 100,000 passengers will eventually have to be handled during the maximum hour, and, assuming a power requirement of 600 k.w. per train, will need a power supply of over 80,000 k.w.

That portion of the City and Suburban Railway Electrification to be immediately completed and opened for operation this year, extends from St. James Station on the City Railway to Sutherland on the Illawarra Line, overhead structures being provided and sub-station capacity being made sufficient to provide for the electrification of the Bankstown Line.

The approximate number of passengers carried into the city over this portion of the system during the maximum hour will be 25,000, while the total requirements for this section will be about 20,000 k.w. during the maximum hour, the load factor being of the order of 4.

In closing this address, may I quote the prophetic lines written in 1788 by Dr. Erasmus Darwin, grandfather of the eminent Naturalist, Charles Darwin:—

A VISIT OF HOPE TO SYDNEY COVE

"Hear me," she cried, "Ye rising realms! Record Times open scenes and Truth's unerring word—
There shall broad streets their stately walls extend.
The circus widen and the crescent bend;
There, ray'd from Cities o'er the cultured land.
Shall bright canals and solid roads expand.
There the proud arch, Colossus-like bestride
Yon glittering stream and bound the chafing tide;
Embellished villas crown the landscape scene,
Farms wave with gold and orchards blush between.
There shall tall spires and dome-capt towers ascend.
And piers and quays their massy structures blend;
While with each breeze approaching vessels glide.
And northern treasures dance on every tide!"

—Dr. Erasmus Darwin.

It has fallen to my lot to translate Dr. Darwin's prophetic vision into beautiful realities of steel and stone, for, in this glorious city of ours, beauty of design is quite as essential as utility of purpose or economy in construction.

In conclusion, gentlemen, as the engineer responsible for many works which will either beautify or uglify Sydney, lecturing before the Institute of Architects, I should feel as, perhaps, Daniel did when about to be thrown in the den of lions. Before I commenced work I was frequently told that an overhead railway in the City would be an eyesore; however, when the gardens are completed around Central Station and planted chiefly with Christmas Bush, Waratahs and Illawarra Lillies, and the land between Elizabeth Street and the retaining wall along Belmore Park is paved with sandstone and planted with tree ferns and palms, and in places with flowering lantana, the above-ground portions of the railway from Central Station to Campbell Street will be at least eyeable, as a judicious use of Nature's foliage can be made to screen an engineer's shortcomings as well as to enhance any merit that may be in his work.

registration fees are being utilised in sending students abroad, draftsmen and architects not in private practice who pay annual registration fees are thus compelled to contribute to the success of their competitors; hence, I move that this unfair condition of affairs be placed before the State Premier for action, with the recommendation that the annual registration fee of £2/2/- is excessive for its true purpose and that it be reduced to 10/6 per year for architectural draftsmen and architects not in private practice."

The Chairman then invited members and friends to refreshments.

ARCHITECTURE

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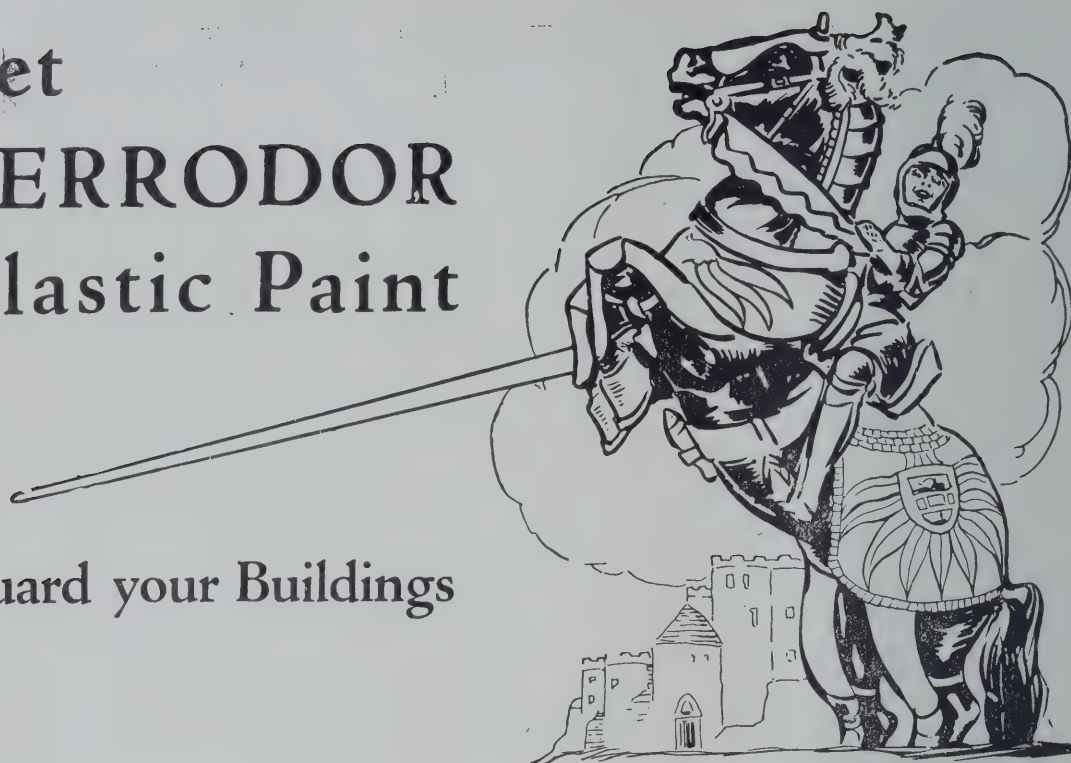
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Mezzotint by Lionel Lindsay.

ART AND THE STATE

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ARCHITECTURE

THE JOURNAL OF PROCEEDINGS OF THE INSTITUTE OF ARCHITECTS OF NEW SOUTH WALES

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October, 1926

ART AND THE STATE

THE need of taking some measures to preserve the beauty of Sydney, was stressed by Mr. Sydney Ure Smith, at the official dinner, recently initiated by the Society of Artists. "The relation of art to the State is important, and when art is given greater official recognition, its benefit to the State will be more readily understood," remarked Mr. Smith. "With the rapid growth of our city, every day it becomes more obvious, to those of us who respond to any sense of beauty, that something definite will have to be done—and done quickly—to gain proper aesthetic control of a city, which might have been wonderful, but which in many respects is rapidly becoming hideous.

"It is not enough to measure progress materially. It is not enough for a successful company to rebuild, without adding in some slight way to the beauty of the city. Does not a successful firm owe it to the community which has placed it in a fortunate position to do its part in developing the community's taste, so that at least our people will recognise a finer impulse behind the directing minds than that of mere commercialism? The artistic impulse, which is latent in the public, can be awakened by proper guidance; the trouble at present is that there is no one to guide and lead in these matters, I think we all feel this can be remedied.

"The city can be improved by seeking the advice of accredited experts—by the co-operation of the kindred professions—by the formation of a State Art Advisory Board, with necessary power, acting under a Minister for Fine Arts. Officially, there is always apt to develop a feeling of self-consciousness in connection with suggestions of this sort. Practical, hard-headed commercial men are apt to belittle the importance of such matters. I remember, Sir Baldwin Spencer made a similar suggestion that a Minister for Fine Arts be appointed in Victoria, and I regret to say the Melbourne press ridiculed the idea.

"Surely any practical man has sufficient vision to realise what improvements could be made, by expert advice as against ignorant amateur control in such matters; such as laws governing the appearance of exteriors of buildings in city and suburbs, limitation of painted signs on buildings, the designing and improvement of parks, the treatment of the foreshores of the Harbour, and the beaches and the beauty spots surrounding us. I maintain it is just as easy and probably no more expensive to beautify a city than to make it ugly. It is not a matter of expense—it is a matter of taste. We must start clean and fresh with new plans if we wish to develop artistically. I hope no suggestion made to-night by myself or members of the Society will be taken as a personal reflection on any interested person present, but only as a series of earnest suggestions put before you for consideration.

"Before I leave this subject, I would like to mention the deplorable fact that the regional plan—that valuable scheme for the entire re-modelling of Sydney, put forward a few years ago—has been allowed to languish for lack of support. The regional plan was not for to-day—it was for the future. The idea was to gradually mould the city we have, to the plans of the city we should some day possess—bit by bit—as opportunity occurred—so that each generation would gradually do its part in helping the work to the grand plan conceived by the accredited experts of our time. The regional plan is worth reviving. I hope something can be done to keep it going, instead of allowing all that work and careful planning to become useless."

Mr. Norman Carter, who had typed his speech, was unable to deliver it, owing to lack of time to complete the list of toasts. We give the following extracts:—"The general condition of a city is a practical question, and we as artists are definitely interested. I trust that I will not be

thought presumptuous if I speak rather pointedly about prevailing conditions in Sydney. The beautification of the city is a matter of common sense, of working to an ordered plan. What is needed is a group of the best experts obtainable, from elsewhere if they cannot be provided locally, to deal with this urgent problem. Pottering with piecemeal improvements is valueless. A plan conceived with the broadest outlook, to which all bodies and individuals would have to conform, is the only practical solution. Few of us realise how rapidly opportunities for improvement are slipping away. Every man for himself and the devil take the city, is no way to construct, for either utilitarian or aesthetic purposes. In walking about the city and suburbs the eye is tortured by lack of uniformity in scheme and design, the ruin of many fine sites by unsuitable buildings, and some fine buildings placed on unsuitable sites.

"We boast of the natural beauty of our surroundings. But what have we done to enhance them? We hear of many, who return from world tours, who tell us that they have seen no better place than Sydney. The original state of the harbour may have been unrivalled, but what have we done with it?

"There should be a greater use of native foliage producing masses of green welcome shade, an absolute necessity in this climate. Sweep away every tree natural to the place seems to be the order of the day. And if anything be done in city or suburban squares, palm trees and rockeries are accepted as the last word in beautification. Beds of flowers are robbed of much of their beauty if not set amid banks of foliage. They are like pictures without frames. Melbourne may not be perfect, but we would do well to follow her example in some respects. It is due to sheer thoughtlessness, if not ignorance, that we have destroyed and go on destroying so much natural beauty.

"This jumble and tangle is the direct result of having no central control by a body of individuals equipped with necessary qualifications and powers. There is one grain of hope. There are a few men in the community who are imbued with sound ideas on this big question, but who are at present as voices crying in a wilderness of materialism. Here and there are to be seen a building or scrap of town planning to keep one hoping. It is to encourage and develop this germ of good that this appeal is made, and so endeavour to exterminate the evils which are rapidly overwhelming us."

The Minister of Education (Mr. Mutch) saw no possibility of establishing a Ministry of Fine

Arts. Leaving aside the conditions under which they had to carry on their sordid squabbles, a Minister, he said, would have no time to develop such ideas before he would be out, and someone else, perhaps holding entirely different views, would have replaced him. As an instance of what a Minister of Fine Arts would be up against, he might mention war memorials. He had tried to prevent townships from erecting stereotyped statues, only fit for birds to perch on; every time he had objected he had been attacked by the local bumbles for being disloyal. The best way in which to carry out Mr. Smith's ideas was the way which was being followed now, under great difficulty, in connection with the public schools. They should start with the school beautiful—then the child beautiful—which would lead to the State beautiful.

There is no doubt there would be a lot of rumblings among the bumbles if a Ministry of Fine Arts was established. But the idea which is derided to-day often becomes the accepted fact to-morrow. The State Conservatorium of Music, the exhibition gallery in the Education Department, and the School of Sculpture are now established institutions, and no one demands that they should be swept away.

As a matter of fact, we have already, in Australia, an Art Advisory Board, whose recommendations, in most instances, are adopted by a Minister. The Prime Minister of Australia is practically a Minister of Fine Arts who is advised by a Federal Art Advisory Board. The Commonwealth Government is now one of the biggest patrons of art in Australia. A few items will give an idea what past and present governments have done for art. Over £10,000 was spent on the sculptural groups which adorn the facade of Australia House, over £6,000 has been spent on the collection of Commonwealth Portraits, £5,000 on the Ellis Rowan Collection, £3,000 on the Wilson Collection of Drawings of Old Colonial Architecture, and so on. In addition, thousands have been spent on military portraits and battle pictures for the Australian War Museum.

It is rather curious that no objections have been raised against either the recommendations of the Federal Art Advisory Board, or the money spent by the Commonwealth Government. It would appear, that in the wide swell of the Commonwealth the bumble loses significance. He looms larger in the State and reaches gigantic proportions, in the pomposities of his own town. But even if it needs an Act of Parliament, he should be kept strictly in his place.

THE STORY OF A FOUNTAIN

By William Moore

REFERRING in the *Daily Telegraph* to the works produced by the pioneers of art in Australia, Arthur Streeton mentioned Stanford's Fountain, which he claimed was the most artistic one in Australia. It stands in a small plot of ground in Spring Street, Melbourne, between Parliament House and the old Treasury Building. It has a curious history.

Carved from rough blocks of bluestone by a prisoner of the Crown, this fountain is forever associated with the agony of mind and strenuous labor of William Stanford, who succeeded in redeeming his name from the taint of crime and died through inhaling the dust raised in chiselling this work. It is a memorial of his victory over circumstances. It is his expiation. Who was Stanford?

Beyond the information that he was apprenticed to a stone mason in London, that he ran away to sea on account of some trouble with his stepfather, and that he arrived in Bendigo in the fifties, there is nothing known of his early life. It is not necessary to go into the details regarding the circumstances which made him a criminal. He made his third appearance in the dock in May 1st, 1860, on two charges of highway robbery and one of horse stealing. He was convicted on all, his total sentences amounting to twenty years. We are told that when he returned to prison, he looked round on the high walls and muttered in glum despair, "Good-bye to liberty forever." He had now reached the age of twenty-four when a fair future should have lain before him. But it was blank—blank as the bare walls. For twenty years he would never hear the rumble of the outside world, there would be no change in the days, the weeks, the months, the years; always the same outlook and the aching monotony of the prison round. He had only been in goal a year when exasperation prompted him to make his escape. He was soon recaptured and sentenced to an extra two years, with hard labour, in irons. This was the orthodox manner of treating a prisoner and no one thought of any other till the chaplain of the prison suggested a way.

In each of the cells there hung a slate on which the prisoner could use his pencil as he pleased. The chaplain noticed that Stanford's was covered

with sculptural figures which he had copied from a magazine from the library. The prisoner also showed him a carving from a meat bone, which had been done with a pen knife he had smuggled into his cell. The chaplain was so impressed with this that he showed it to the governor of the prison, and pointed out that the work showed evidence that Stanford had powers, which, if given a chance to develop, might change his whole character. The governor who had the good sense to give him this opportunity, also gave permission to allow Charles Summers to instruct Stanford in modelling. Besides giving him valuable lessons, the sculptor lent him some art books, which were very useful. And so, later on, Stanford began to work on the fountain. The constant stooping and the inhaling of stone dust, however, affected his health and he petitioned for his release. The medical officer at this time reported that he had carefully examined the prisoner, whose lungs, he said, were much injured. "Their capacity," he added, "is much lessened by the inhalation of dust and his throat is in a diseased state from the same cause." But nothing was done.

But while Stanford stood a dejected figure before the unfinished work, there were good friends working for his discharge. The news that a prisoner was carving a fountain stirred some curiosity outside and even became a subject of conversation at Parliament House. It was after a Collins Street doctor, who sat in the Assembly, had persistently urged the release of Stanford, that he at last got his freedom. He was discharged in 1870, having at this time some years to serve. Under the care of his deliverer his health improved; and with the doctor's assistance he started as a monumental sculptor. He married, paid his rates and taxes, lived at peace with his neighbours, and worked up a successful business. It may be added that after he left prison he gave the finishing touches to the fountain where it now stands. He never received any payment for it; it was the price of his liberty, and it squared all accounts as far as he and the State were concerned. He died ten years after his release, death being caused by a complication of ailments, one of which was "stonemason's disease."

The dust of the fountain had killed him at last.

NEWS AND NOTES

The South Melbourne Council is considering a proposal to erect dressing sheds on the beach to contain 6000 cubicles. The frontage of the building will be 700 feet.

The General Assembly of the Presbyterian Church of Australia proposes to build and endow a church at Canberra at a cost of £44,000.

The exhibition of examples of Architecture in the Dominions, under the auspices of the Royal Institute of British Architects, will be opened on October 19th.

NEW ARCHITECTURE

"There is no such thing as new architecture," says Sir Reginald Blomfield, in the *Quarterly Review*. "Norman Shaw showed in his new Scotland Yard what a really great designer could do in handling a public building, if he could let his intelligence play freely round his problems and if he was allowed by the authorities to do so. Shaw's building remains the finest public building erected in London since Somerset House. It is on the old lines, and yet it is splendidly original, far more so than the newest of our new architecture."

THE GEELONG STUDENTS

On his return to Geelong, Mr. G. R. King, the principal of the Gordon Institute of Technology, gave the highest praise for the manner in which the students were received during their recent visit to Sydney. Of the many conducted tours it was, from every standpoint, the most successful. The value of the trip was manifest by the keen interest shown by students in everything they saw.

VISIT TO NEWCASTLE

Accompanied by Professor Hook, a party of students from the School of Architecture at the University paid a visit to Newcastle on September 29th. It visited the steel works and attended the ceremony of enshrining the Foster Lamp at the Warriors' Chapel. The following day it visited Ryland's Nail Works and Lysaght's Corrugated Iron Works.

REGISTRATION IN VICTORIA

"It is reported on good authority," says the Melbourne Age, "that the Victorian Government will soon be requested to amend the Architects' Registration Act, 1922, in order to make it uniform with the acts in New South Wales, West Australia and New Zealand. Owing to a flaw in the drafting of the present Act, any person can practice as an Architect in the State, as long as he

does not describe himself as a registered architect. It contains nothing to prevent unqualified persons from doing architectural work for payment or from describing themselves as architects.

A GLOOMY VIEW

"In spite of the many excellent architects we have, the masses of the people are now forced to dwell in homes which their forefathers would have scorned to inhabit," said Augustus John, A.R.A., in a recent broadcast talk in London. "The English have nothing to be ashamed of in their artistic past; they need only blush for the betrayal of their admirable traditions, which has degraded industry to the level of a sixpenny bazaar. Still, thank God, there is nothing permanent in our present conditions. Our slums are not going to last forever any more than the new mushroom villas. Probably the community of the future will grow its houses, much as the motor car industry grows its cars. But for the elaboration of the details of the house of the future, will not the artist be still employed?"

THE DIXSON WING

Just as the Mitchell Library provides a permanent place for the early records of Australia, the Dixon wing which is to be erected at the rear of that building, will provide accommodation for rare examples of the early art of this country. It will contain the collection given to the State by Mr. William Dixon, who has done for the early art of Australia what Mitchell did for literature. The collection includes examples of the work of most of the early artists from Governor Phillip's time, to 1860. It contains many fine examples by Conrad Martens, Sir Joshua Reynolds's portrait of Captain Cook, Gilbert Stuart's portrait of the first Viscount Sydney, and many other valuable works.

SPLAYING OF CORNERS

Replying to a letter regarding the splaying of corners in busy city streets, the Town Clerk, Mr. W. G. Layton, has informed the Secretary of the Institute that the City Engineer and City Surveyor states that it would be difficult to comply with the request for plans and particulars to be made available to architects showing the corners in the City that it was intended to splay, as each corner was dealt with on its own merits, taking into consideration the widths of the thoroughfares, the amount of traffic, and the actual type of building to be constructed. The City Engineer and City Surveyor was of the

opinion that it would be more practicable for members of your Institute to discuss the question of the splaying of any particular corner with him prior to the preparation of plans.

BOUND FOR EUROPE

Mr. Albert E. Barnard, a diplomate of the Sydney Technical College, who was recently awarded the Australian Medallion and the Travelling Scholarship, leaves for Europe on October 20th. At a farewell function, his friends presented him with a cheque, with the best wishes of the company. Mr. Barnard, who has been on the staff of Messrs. H. E. Ross and Rowe, was recently elected a member of the Institute of Architects. He intends spending three months in England and nine months on the Continent. He will then return to London, where he will work in an architect's office for some time. He will visit America on his way back to Australia.

LONDON STUDENTS' EXHIBITION

The exhibition of works by students of the School of Architecture conducted by the Architectural Association, London, was formerly opened by Hon. T. D. Mutch, Minister for Education, at Farmer's Gallery on October 11th. The collection consists of eighty drawings, and along with these ten drawings by students of the School of Architecture at the University and ten drawings by the students at the School of Architecture, Sydney Technical College are shown. The exhibition should be of great service to students here, as it enables them to compare their own work with that done by these London students. As Farmer's is one of the most central galleries, there should be a large attendance during the run of the exhibition.

CHAIR OF BUILDING SCIENCE

The Institute of Builders, London, is taking steps to found a Chair of Building Science and Art at the Cambridge University. The formation of courses of study in Building Science and Art will not at present require the foundation and equipment of new schools and laboratories.

There exist at Cambridge special schools, museums, and faculties dealing with exactly the subject-matter of the Building Industry. In the schools are the teachers and the apparatus that the scientific and practical building student requires. The practical reputation of the University's schools (especially that of the Engineering Schools) is well known and world-famous.

All that will be required to initiate the scheme will be the establishment of a Professorial Chair of Building Science and Art, so that the educational needs of the Industry's University students may become the special care of a Professor who would undertake the organisation of a school and the focussing and directing of the existing courses for the benefit of Building students.

The cost of endowing a Chair would be about £25,000, which the Institute considers for an Industry of such importance and for interests so vital to the development of its life should not be a difficult sum to raise. In the solution of technical education problems, the Building industry has given freely to other professions, and the Institute feels that what the industry has done for others it can certainly do for itself.

A COMMONWEALTH HONOUR FEDERAL COUNCIL'S MEDAL

A new honour for students has been established by the Federal Council of the Australian Institute of Architects. This is a bronze medal for a competition among all students of architecture of not more than twenty-five years of age at the closing date of the competition. As the competition will be open to architectural students throughout Australia, the prize is one which should attract a large number of competitors.

The following are the full particulars of the competition.

ADJUDICATION: The Competition will be assessed by three assessors appointed by the Federal Council of the Australian Institute of Architects.

The decision of the Assessors in all matters connected with the Competition will be final and binding on all competitors.

SUBJECT OF COMPETITION: The Medal is offered for the best set of Measured Drawings of some building of architectural and of historic interest. The subject to be approved by the Federal Council of the Australian Institute of Architects.

The drawings are to be accompanied by actual field notes and dimensioned sketches. The competitor is to submit also typewritten notes descriptive of the building and indicating its history, use, dates of constructions, materials, and reference to its Architect.

CONDITIONS:

RESPONSIBILITY OF FEDERAL COUNCIL: The Federal Council collectively and individually does not accept the responsibility as to the safe transit, custody or return of the drawings and notes forwarded or delivered by competitors, but it undertakes that all reasonable care will be exercised to prevent damage during the period they are in its custody, and that all drawings not placed will be returned to the authors without delay. The Council reserves the right to publish any or all the drawings and notes.

MANNER OF SUBMISSION: Each Competitor may submit only one set of drawings. Each set is to be submitted without revealing the name of the competitor. The drawings and sketches shall not bear any motto, name or distinguishing mark or decorative border, but shall be accompanied by a sealed opaque envelope containing the name and address of the author, and a declaration that the work is his own personal work. Such sealed envelope, which must be securely attached, will be numbered on receipt, and not opened by the Assessors until the adjudication is complete and the award made.

The drawings must be made on paper 27in. x 20in. (half double elephant) or mounted to that size and delivered flat in a portfolio, 30in. x 32in. The successful competitor must be prepared to satisfy the Assessors that he is the bona fide author of the drawings, sketches and notes submitted, and must submit proofs that he is a Student.

Competitive drawings shall be excluded from the Competition—

- (a) If sent in after the period named herein. (Accidents in transit excepted).
- (b) If it does not substantially fulfil the conditions stated herein.
- (c) If the competitor shall disclose his identity or attempt to influence in any way the decision of the Assessors.

CLOSING DATE AND DELIVERY: The Competition will close at 4 p.m. on 30th April, 1927, and competitive work must be received on or before the above date by the Honorary Secretary, 5 Elizabeth Street, Sydney.

QUESTIONS: Any questions arising out of the conditions may be addressed in writing to the Hon. Secretary of the Federal Council, on or before 30th November, 1926. Such replies as the Assessors may think necessary will be forwarded to all competitors, and form part of these conditions.

Issued by order of the Federal Council of Australian Institutes of Architects.

J. AUBREY KERR, Hon. Sec.

5 Elizabeth St., Sydney.

SYDNEY UNIVERSITY ARCHITECTURAL SOCIETY

At one of the recent evening meetings, Mr. Norman Weekes gave a very interesting talk on "Architecture and the young Architect." The six cardinal points for the aspiring architect to keep in mind were: Love, Joy, Hope, Patience, Understanding and Industry. He gave many valuable hints to the students. He was introduced by Mr. R. S. Hawdon, and at the conclusion of the lecture was thanked on behalf of the graduates by Mr. F. Munro, B. Arch., and on behalf of the undergraduates by Mr. C. C. Bennett. At the same meeting the Society bade farewell to Mr. Raymond McGrath, the winner of the Wentworth Travelling Scholarship, who has since left for London. Farewell speeches were made by Messrs. Hawdon, Weekes, Clamp, Maderson and Mansfield. In response, Mr. McGrath said he would do his best to uphold the ideals of the Society and hoped to keep in touch with it while he was away.

There was a reunion of graduates and students at a mixed Doubles Tournament at the University Women's Court on October 9th, when the proceeds were given to the Cancer Research Fund.



MEMORIAL TO THE LATE MR. H. C. DAY

As a tribute to the valuable services rendered by the late Mr. H. C. Day as Honorary Secretary of the Institute of Architects of New South Wales, a memorial has been placed over his last resting place by members of the Institute. It is surmounted by a cross carved out of freestone from a design by Mr. B. J. Waterhouse.

In a letter to the Secretary of the Institute, Mrs. Day expressed the gratitude of herself and her family for the beautiful memorial to her late husband, and conveyed to the council and members her heart-felt thanks for their appreciation of his work. She added that she was much touched by the sending of a beautiful wreath to the cemetery on the anniversary of his death.

At the annual conference the Federal Council of the Australian Institute of Architects, held recently at Canberra, reference was made by the delegates to the services rendered by Mr. Day in the capacity of Hon. Secretary to the Federal Council, and it was resolved that an appreciation of his valuable work should be recorded in the minutes. The President (Sir Charles Rosenthal) was requested to forward a letter of sympathy to Mrs. Day on behalf of the Federal Council.

THE JOSELAND PRIZE

Competition for Students for best Collection of Measured Drawings.

CONDITIONS:

Open to bona fide students of Architecture whose age does not exceed twenty-five years.

JURY.—The Chairman of the Exhibition Committee, or a sub-committee appointed by him. All work must be:—

- (a) The bona fide work of the Competitor only.
- (b) Must have been executed within 12 months of the closing date, and must be accompanied by a statement embodying these facts duly signed by the Competitor.

DRAWINGS to be on Imperial sheets mounted on strainers.

DRAWINGS to be in line only. Pencil or Ink sections may be hatched.

DRAWINGS are to be fully dimensioned and details of construction where ascertainable, clearly shown. In judging, the Committee will take the following into consideration:—

1. Selection of subject.
2. Method in survey, taking notes and plotting.
3. Draftsmanship.

A full criticism on drawing submitted will be published in "Architecture."

The original notes and spot plottings, which need not be mounted, but should be in book form, are to accompany the finished drawings.

Drawings must not have any signature, motto, or identification mark inscribed thereon; in the event of any such being on the drawings they must be covered with a neat black label.

Each set of drawings must have attached thereto Association, London, formally opened by the a plain wax-sealed envelope containing the name and address of the author of the work, age of the competitor, and the declaration required under forms (a) and (b) above.

Drawings and envelopes will be numbered consecutively on receipt.

The drawings are to be delivered during May, 1927; the exact date, and particulars regarding delivery will be published later.

Measured drawings of any building designed by the following Architects may be submitted for competition:—

Any building designed by—

The late Edmund Blackett,
Horbury Hunt,
W. W. Wardell,

F. Greenway,

Church at Muswellbrook by the late Sir C. C. Scott.

Public Buildings in country towns which were erected prior to 1875.

Should any Competitor desire to submit drawings of only a portion of any building he must include a key plan indicating the relation of his drawing to the whole.

Every reasonable care will be taken of drawings submitted for competition, but the Institute will accept no responsibility for loss or damage from any cause whatever.

First Prize .. £4/4/-

Second Prize .. £2/2/-

The Committee reserves the right to modify or alter the above prizes according to the standard of the work submitted.



VILLAGE ST., AMBLESIDE.

Coloured pencil drawing by Sydney Ure Smith, who is holding a show of drawings and etchings at the Macquarie Galleries, Bligh St., during the latter part of November.



"GRONG GRONG," TOORAK, MELBOURNE.

Architect: Walter R. Butler, Esq.



SPRING AWAKENING.
Sculpture by Harold Parker.



PROMETHEUS BOUND.
Sculpture by Harold Parker.

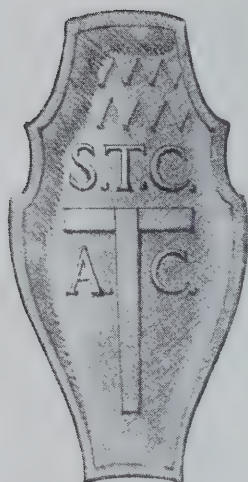


EBENEZER VICARY'S.
Etching by Lionel Lindsay.



THE DESERTED COURTYARD.
Etching by Sydney Ure Smith

SYDNEY TECHNICAL COLLEGE ARCHITECTURAL CLUB



THE S. T. A. C. BADGE

*The Official Badge
Designed by G. A.
MacDonell, who
has adopted the
motif of a Floren-
tine Shield.*

THE annual exhibition of work by the School of Architecture, Sydney Technical College, is to be held in the Gallery, Education building, early in December. It is proposed this year to set aside a space for ex-student's work. It rests with the ex-students to see that this is filled with good work. Anything of architectural interest is acceptable—sketches, measured work, rendered sheets, working drawings, or photographs. Exhibits must be handed in to the Lecturer-in-charge at the College by the 30th November.

The club is determined to have ready in time for this exhibition a year-book of students' work, similar to those previously published by Mr. Hadley, Lecturer-in-charge (at his own expense). It is felt that the publication of the year book is very important from both an educational and professional standpoint. We do not, however, expect to issue this number gratis, as has been done hitherto, but we rely on all members of the profession to see that it receives the support that is its due.

The above design, which has been formally adopted as the official badge of the Club, is the result of the recent competition held for that purpose. The adjudicators, Messrs. Norman Carter, G. Rayner Hoff, A. H. Martin and F. G. Costello, considered that of all the designs submitted, this one was the most appropriate and best filled the conditions of the competition, which desired that the badge should be distinctive, neat and refined. The designer, G. A. MacDonell (Stage IV.) adopted the motif of a Florentine shield, which seems admirably adapted for this purpose,

as it gives not only a distinctive shape, but an architectural feeling. This is also expressed by the introduction of the formal T Square. The only note of ornament is in the chevron ornament at the top, which, however, while being quite in keeping with the style, satisfactorily fills an otherwise waste space.

September 9th, 1926, should be marked as one of the red letter days of the club, for on that date the first number of our monthly journal was published. "*The Atelier*"—for such is its name—has been well received, and it is evident that this is to become one of the most important of the club's activities. The first issue consisted of six 8vo pages produced on the rotary duplicator. Sixty copies were distributed. This is to be the official organ of the club. It will keep members posted with club news and follow our various travellers across the seas. Humorous, helpful and historic articles will also be printed, and the journal offers a field for some literary expression from the students. The editorial work is in the hands of the president and secretary, who, with the co-operation of the executive and other members, are working hard to ensure its continued success. The price charged is threepence per copy—a single copy being issued gratis to each club member.

One of the objects of the Club was to arrange for short talks and lecturettes on various subjects appertaining to architecture by members of the profession, and the first of these was given by Mr. T. E. Cooper, a member of the teaching staff of the Architectural Department, on Thursday evening, 16th September, in the Club Room. As Mr. Cooper has just returned from about seven years of travel and study abroad, it need hardly be mentioned that his subject took the form of a narration of some of his experiences and observations. The lecture proved to be not only very interesting, but very useful, especially to those students whose ambition it is to go abroad at the completion of their studies, as he was able to supply a great deal of first-hand information about England, Europe and America. The difficulties of travelling, the obtaining of accommodation, the necessity of travelling light, the towns and examples of architecture really worth seeing, and the ways and means of viewing and photographing prohibited subjects, were all mentally noted for future reference by all present, except Mr. A. E. Barnard, whose need being more press-

ing, took copious notes, which will no doubt be of great assistance to him in the near future. Mr. Cooper, judging not only by his references to them, but by the charming little water colours and sketches which he showed (with undue diffidence) to his admiring audience, seemed particularly impressed with the delightful old towns of England and France, whose charm can only be fully realised by those who have actually visited them. Vaguely disappointed with Italy, more perhaps in regard to the dirt and squalor as experienced in the larger cities, than its architecture, he soon transported us to America. Here he

stayed for several years, working first in the west then later moving eastward to Pennsylvania—where, at the University, he completed a two years' course on Architecture (very condensed)—finally reaching New York. At this juncture Mr. Cooper dealt with American office practices, wages and working conditions, laying stress on the consideration given to the younger men in the profession. At the conclusion, the students expressed their appreciation of this stout effort in no uncertain manner, and the fact that he was plied with innumerable questions is eloquent testimonial to their interest.



THE LOLLY SHOP.
Etching by Lionel Lindsay.



Process blocks by Bacon and Co. Ltd. ST. LUKE'S HOSPITAL, DARLINGHURST.
Architects: Messrs. Joseland and Gilling.

A GREAT CHURCH ARCHITECT

THE proposed removal of St. Andrew's Cathedral has revived considerable interest in its architect, Edmund Thomas Blacket, whose remarkable work has given such a prestige to the architecture of the State. He did so much and did it so well, that anything which throws light on his life and work should be welcome to those interested in the earlier developments of our architecture. It is a sad reflection on the callous attitude towards Beauty in Sydney, that two of his works, St. Andrew's and St. Maathew's, Manly, should be marked for destruction. It would appear that there is nothing sacred in Sydney and that a hundred years hence, posterity will have to content itself with the ruins of what was once rare and fine.

To Mr. Cyril Blacket we are indebted for the following particulars of his father's career. Born in London, August 25th, 1817, early in life Mr. Blacket was engaged as a surveyor for the line of one of the first railways in England—the Stockton and Darlington line, which is now part of the London and North-Eastern Railway. While engaged in this work, all his spare time was spent in measuring and drawing old Gothic buildings. As he had never entered an architect's office, he was entirely self-taught. While in the North of England he married, and with his young wife, he came out to Sydney. It was his intention to settle in New Zealand, but he was induced by Bishop Broughton, to whom he had letters of introduction, to settle here. His first job was the inspection of church schools, the buildings themselves, as well as the teachers and scholars, till eventually the architectural side took up all his energies. At this time he resided in a cottage at the far end of Oxford Street, which he built at a cost of £600, and when the gold rush occurred he was able to let it for £600 a year. After filling the position of Government Architect for some years, he took up private practice, and was appointed Architect to the University. He died February 9th, 1883.

A steady worker, he got through a remarkable amount of work, and at one time he and Mr. Cyril Blacket had three cathedrals and eighty-one churches on hand. He built four churches started by others. All but the outer walls of St. Andrew's Cathedral and Christ Church, Sydney, was from his design; he designed the spire and transepts of St. John's, Darlinghurst, all of St. John's, in the Glebe, except the tower top. The following structures were entirely designed by

himself: The main building and the Great Hall at the University, St. Paul's College, Goulburn Cathedral, Perth Cathedral, St. Mary's, West Maitland, Canberra Old Church, St. Mark's, Darling Point, St. Thomas', North Sydney, St. Stephen's, Willoughby, St. Phillip's, Church Hill, All Saints', Woollahra, St. Michael's, Surry Hills, St. Mary's, Waverley, Holy Trinity, Miller's Point, St. Saviour's, Redfern, St. Stephen's, Newtown, St. Matthew's, Manly, St. Michael's, Vacluse, St. Peter's, Watson's Bay, "Grant-ham," Darling Point, The Blind Asylum, and Mort's Wool Store, Circular Quay. A lot of his work like the old E.S. and A. Bank and the old Federal Bank have been re-modelled beyond recognition. A number of his buildings, which were not completed when he died, were finished by Mr. Cyril Blacket.

Mr. William Slade, who started as a pupil of Mr. Blacket at the age of fourteen, had rare opportunities of observing the methods of this great architect. "Although he had made a close study of many buildings in England," said Mr. Slade, "he was never mere copyist. In connection with the design of St. Andrew's Cathedral, the original proposal was to have only one tower, modelled after the style of that of St. Mary's Church, Oxford, but Mr. Blacket, in re-modelling the whole design decided to introduce two towers after the style of those of the western front of York Minster. If you look at photographs of the towers of both edifices, you will observe that Mr. Blacket made no slavish copy of the English model. The towers of St. Andrew's are actually more beautiful than the others. The treatment of the parapet and the finials express in a high degree the spirit of the Gothic revival, of which the Houses of Parliament, London, may be taken as the starting point. We should be very proud that we have these beautiful examples of Gothic architecture in Australia, and never forget the enthusiastic architect who has left us such noble examples of his work. These towers are vastly superior to those of Westminster Abbey, which were designed by Sir Christopher Wren. In his day Gothic architecture had fallen into disfavour owing to the prevalence of the classic influence, and so he failed to catch the spirit of the Gothic style so ably handled by Pugin and Barry in subsequent years. I should like to add that anyone interested in fine carving will find rare examples in the interior of St. Andrew's, particularly the terminals of the stalls in the Choir. They were

done by Mr. Ferris, who had worked under Pugin, in connection with the erection of the Houses of Parliament, London.

"Another big work designed by Blacket was the main building of the University. I have a book called 'The Essentials of Aesthetics,' by G. L. Raymond, Professor of Aesthetics, George Washington University. In this work the author reproduces a photograph of the facade of the Main Building, which he regards as one of the finest examples of revived Gothic. He remarks on the way the exterior indicates the inner construction of the building. Blacket's design of the Great Hall was based on that of the historic Westminster Hall. But here again he did not make an actual copy of the other building. By raising the height of the walls, he got a more imposing effect than was obtained in the other structure.

"One of his churches, St. Matthew's, Manly, is unfortunately, to be demolished. Known as Early English in style, its exceptionally high pitched roof gives a peculiar but pleasing impression to the beholder. Mr. Blacket was very particular in the matter of vanes, copper only being used. To-day the finial on the turret of this church

is as good as it was when it was placed there over fifty years ago. The site of this church was given by the Darley family, and it was not till after St. Matthew's was erected, that the property owners on each side of the Corso agreed to the street being widened from one chain to one and a half chains. This accounts for the building projecting beyond the present alignment about fifteen feet.

We have in St. Phillip's Church (Church Hill) an example of Mr. Blacket's successful treatment of "perpendicular" Gothic. It is greatly to be regretted that of late (since his decease) it was deemed necessary to lower the pinnacles of its tower, considering them unsafe, thereby entirely destroying the beauty of that portion of the structure by reducing them to stumpy and inappropriate terminals. The original pinnacles might have been retained by simply buttressing them with metal stays as was done at York Minster, England.

At St. Andrew's Cathedral there is a memorial tile erected by the Chapter in recognition of Blacket's services to the Cathedral. Something of the kind should also be done at the University.

SAFE GUIDE FOR MOTORISTS

Most owners or drivers of motor vehicles now-a-days have a very good idea of the value of correct lubrication in their engines. Insufficient Oil, of course, will soon run an engine, poor oil will cause trouble almost as quickly, while oil which is of good quality but *unsuitable* is also attended by more or less disastrous results.

Every type of motor unit has its own particular needs, and as the average motorist cannot be expected to know these with anything like scientific exactitude the Vacuum Oil Company Pty. Ltd. has for years been getting out an annual Chart, which shows the exact requirements of every known make of automotive engine. The Mobiloil Chart of Recommendations, which is now well known to motorists, represents the

work of about a hundred highly trained engineers, specialists in lubrication, who are constantly at work in the various centres throughout the world wherever motors are made, investigating the design and lubricating needs of these motors.

This year, the Vacuum Oil Company Pty. Ltd.'s, Chart of Recommendations is more comprehensive than ever. Motor Cars, Buses, Trucks, Tractors, and Cycles are all dealt with on the one sheet. All that anybody owning one of these units has to do is to locate his make of unit on the Chart and alongside of it he will find the particular grade or grades of Oil which are recommended. Motorists will welcome the new issue, which can now be seen at practically every garage throughout the country.

MODERN PASSENGER LIFTS

As nearly as can be ascertained, the first mention in history of a lifting device is made by Vitruvius, who served under Julius Caesar as a Military Engineer, about 46 B.C.; he gives a description of an apparatus built by Archimedes in the year 236 B.C. This device was operated by man power and consisted of a windlass and tackle arranged to lift heavy weights such as massive stones.

The first practical power driven elevators were introduced about 1850 and were driven through worm gearing by belts from line shafting.

America, due to rapid growth of high buildings, became the centre of elevator development, first with hydraulic power, and later, about 1889, with electric power.

Speeds at that time were low, but by 1904 speeds up to 500ft. per minute were introduced successfully.

During the last few years, more attention has been given to the question of control, safety, and efficient operation, so that it is now possible to provide elevators so mechanically perfect that they are controlled and driven by their own mechanism, the driver or operator merely acting as a guide to passengers and starting the machinery by the pressing of a button or the moving of a lever.

The purpose of this short article is to refer only to some of the most modern practice developed during the last few years, the object in view being to obtain an increased service with a minimum number of lifts. The "round trip time" and the number of persons carried per hour depend not only upon—

- (1) The speed of the lift when running, but also upon
- (2) The time to accelerate and slow down.
- (3) The time taken to open and close the doors.
- (4) The time taken to load and unload passengers.

With the type of winding engine known as the "Gearless" Machine, speeds of 800 F.P.M. or more are perfectly practicable, though for normal office use where the rise is 100ft. or over, 600 to 700 per minute is found to give most satisfactory results, and for Department Stores, 350 to 450 feet per minute are usual.

The Gearless Machine, as its name suggests, eliminates the use of worm or other gearing, and is thus very efficient in power consumption. Safety is fully provided for by various devices which automatically slow down the elevator as it approaches the extremity of travel, and in the event of the failure of the hoisting cables, special safety grips come into operation, and gradually bring the car to rest by clamping it rigidly to the guides.

The acceleration and retardation can be quite uncomfortable unless properly proportioned, and in this connection the latest development is what is termed "Multi Voltage Control," which so regulates the starting and stopping that maximum acceleration is obtained without discomfort to passengers.

In order to save time, "inching" at the landings with the consequent discomfort to passengers and wear and tear on the machinery, the "Micro Drive" or Self-Levelling Lift has been introduced, and with fast running elevators this becomes almost a necessity, as not only is the tripping hazard thus eliminated but time is again saved as the car is arranged to adjust itself to the floor level whilst the doors are being

opened. This development has done more to improve service than any other feature of recent birth.

In regard to the operation of the doors, the latest installations in England, America, and Australia, provide for pneumatically operated doors; examples of these will be found in the new buildings under construction for the "SYDNEY MORNING HERALD," DAVID JONES LTD., and the new GOVERNMENT SAVINGS BANK, whilst the new lift recently installed at Messrs. ANTHONY HORDERN'S STORE has the first example of pneumatic doors to be put into operation in the Commonwealth. It can be imagined how the quick, smooth, and quiet operation of the doors will increase the service obtained from an elevator—the pneumatic engine never becoming tired and always responding to the touch of a lever in the car.

In regard to the time taken to load passengers, wide and shallow cars are better than those which are narrow and deep, and double entrances are to be avoided at all costs as they invariably slow up the entrance and exit of passengers, and consequently the quick operation. Wide openings are also desirable though if over 2ft. 6ins. the Lift Regulations require that a gate be fitted in the car, but this can also be operated pneumatically, and so arranged with the object always in view, viz., to "speed up" the service. Indeed the doors on the lift at Messrs. Anthony Horder's give an entrance of 6ft. wide, permitting extremely rapid loading and unloading of the car.

In the case of large Department Stores, where the traffic is constant and passengers desire to travel from floor to floor, special "Department Store Control," based on latest modern practice has been devised to give maximum quality and quantity of service, as well as the maximum of safety.

With this form of control the attendant merely moves a lever to close the doors and car gate, and thereafter the machine takes control, automatically starting, accelerating and slowing down at the next landing, when the gates will open whilst the car is levelling, and after passengers have alighted or entered, the same procedure is repeated.

The attendant is thus free to give his or her full attention to the comfort and movements of the passengers. To give an idea of the improved service obtained with elevators operated by this type of control, it may be stated that they will give 30 per cent. or more increased service over the type of electric elevators usually operating in Department Stores. This means 30 per cent. more passengers will be handled in a given time with elevators of the same capacity and rated speed. In the case of Messrs. David Jones' new store there will be some 22 elevators, 8 of which will be operated by the special Department Store Control described above. These elevators will be of the "Gearless" pattern, running at a speed of 400ft. per minute with "micro" self-levelling equipment and multi-voltage control. Steel doors moved rapidly and silently by pneumatic power will be a special feature; flashing lamps will indicate which car is available, and high speed elevators will carry customers direct to the restaurant. It is expected that this equipment will be the most perfect that Engineers can produce, the acceleration and retardation being designed in direct relation to the movement of the car, giving maximum safety, smooth motion, level stopping, and easy entrance and exit from the cars by reason of the arrangement of the cars and power operated doors.

In addition, 5 special elevators for staff and goods will be provided as well as numerous "dumbwaiters" or service lifts and a large motor car elevator.

The whole of this important installation has been entrusted to Messrs. Waygood-Otis (Aust) Pty. Ltd., acting under the Consulting Engineers, Messrs. Julius Poole and Gibson, and the Associate Architects, Messrs. Henry E. Budden and Crawford H. Mackellar.

A further development of the ideas embodied in the equipment above is what is termed "Signal Control." This form of control is the development of the automatic lift for intensive service in busy office or other buildings. When first installed in the Standard Oil Building, New York, it was described as "almost human."

The statement is not exaggerated—the car literally seems to think. It starts, it moves, it stops automatically. It accelerates and retards its speed without interference.

The starter gives the sign to a full car to begin its upward journey. The uniformed operator with a slight movement of his wrist presses upon a lever on which his hand rests. Gliding smoothly forward, the car gate and the landing door fly shut, clicking simultaneously. Instantly the elevator starts to mount passing imperceptibly from low to high speed. The closing of the doors has conveyed the signal to the control. The car moves, and acceleration takes place automatically. Each entering passenger is requested by the guard to give the number of the floor at which he wishes to alight. "Three!" — "Six!" — "Eight!" — "Twelve" — comes the replies. Unperturbed he raises his hand to a bronze tablet directly above the lever, on which are two rows of buttons, one for each floor. With every response he presses a button bearing the corresponding number. There his worries end—"Signal Control" does the rest.

When the elevator approaches within a given distance of the first landing at which it has been commanded to stop, it slows down and halts on a level with the sill, as if by magic. Without the use of hands, the inner and the outer doors roll back and the passenger is permitted to step out. The operator has not moved a muscle. The instant his charge crossed the sill he informs his elevator that it may proceed by once more pressing the lever which closes the doors. This is the only effort the operator is obliged to make to aid the car on its round trip! The steel cage continues merrily on its way until the control brings it to a standstill at the next floor for which the signal has been given.

And so it responds to the will of the passenger as expressed through the button until its ascent is completed. What is true of the upward, is true of the downward trip.

In the meantime, what of the man or woman who waits in the hallway to be picked up by an ascending or by a descending car?

Every landing is supplied with the usual "up" and "down" buttons, pressure of which commonly notifies the guard that he is wanted to stop.

In the case of Signal Control it is the elevator and not the operator that gets the message. It slows down and stops, the gates open; there has been no action on the part of the uniformed man, the operation is purely mechanical and takes place without his knowledge. No warning flash of lights has given notice that an intending passenger waits. He has not been allowed to stand kicking his heels subject to the whim of an elevator boy who, under ordinary circumstances, could pick him up or leave him standing according to his caprice. Signal Control has taken charge of his desire to go up or down, registering it and making it known to the elevator which, as if with human understanding, answers his call. Deliberately, efficiently, of its own accord it has thrown wide its doors, closed them again and without fuss or waste of time has rapidly started in motion.

An indicator lamp placed in the proper relation to the hall buttons has notified the passenger in due time at which hatchway door he is to await his car, thus avoiding all delay and uncertainty.

There is a time when the operator assumes control. In case he has a capacity load, or should he find that he is falling behind his schedule, he has but to push a switch marked "Non-stop," and the signals intended for his car are automatically by-passed to the one immediately following, which takes his calls while he is permitted to complete his trip uninterrupted.

Reduction of round-trip time is one of the principle features of Signal Control. Seconds are made to count. The novice who rides in one of these cars instantly observes that there is no shooting several inches beyond the floor level, with the necessarily unpleasant jerky return and the consequent loss of time, he notes that this extraordinary car stops flush with the landing.

The Micro-Drive, or self levelling feature, plus the multi-voltage control with which the Signal Control elevator is equipped, eliminates all "inching." When a car which is about to stop enters the Micro-Zone, a space some two feet above and two feet below the floor level, the main operation is automatically cut off, the Micro-Drive bringing it to the landing. In this zone the great speed at which the elevator under discussion travels is reduced, the transition being so smooth that the change from high to low is scarcely perceptible. Safely and slowly it is conducted to its destination, the landing floor and the car platform being level. All tripping hazards are eliminated.

The name Signal Control, as has undoubtedly already been assumed, is derived from the fact that the buttons in the hall, ordinarily used to flag a passing elevator, actually control the stopping of cars.

ARCHITECTURE

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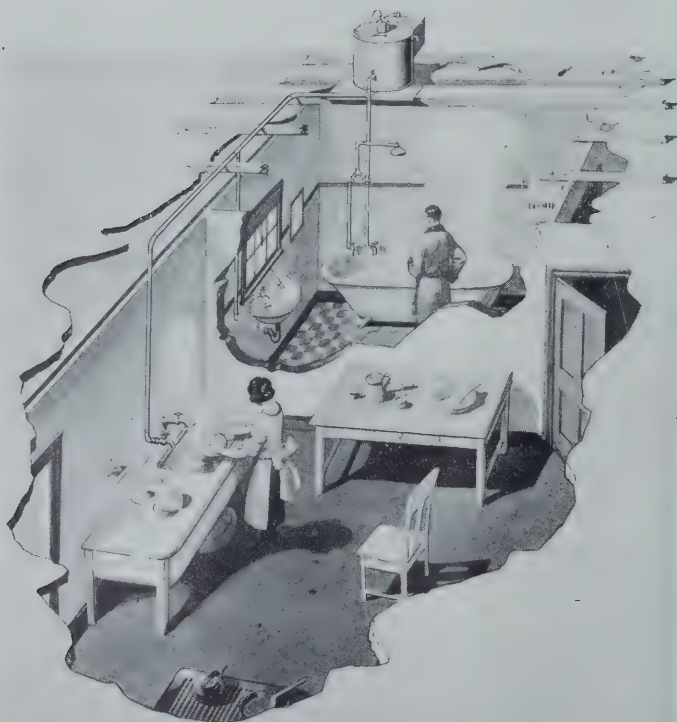
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SOME IMPRESSIONS OF AMERICAN ARCHITECTURE

By Arthur H. Wright.

THE first impression of a visitor upon emerging from his hotel at New York is one of disappointment. He is not overpowered by tremendous skyscrapers. He is in a street perhaps 90 to 100 feet wide with sidewalks 20 feet wide, bordered by tall buildings of perhaps twenty stories, but they seem quite sedate and equable in their varied masses.

The skyscraper takes some finding, being away from the hotel and shopping districts. The Woolworth being the highest is the one most frequented by the visitor. The Gothic treatment to this building seems to lack individuality being reduced to mere ornament owing to the tremendous height of the shaft of the building and all detail is lost up 300 feet high when observed from the sidewalk.

The most impressive sight of the tower is from the other side of the Hudson when this and the Singer Building can be seen at their best towering above the other buildings and losing their peaks in the clouds of mist that are very prevalent in New York in Summer.

The vestibule is very fine, being of white marble with foliated and enriched frieze carved in marble and barrel-vaulted ceilings finished in rich mosaic work in which deep blues, reds and gold are worked in to floral designs. The effect is aided by concealed lights behind the frieze. The external terra cotta work is carried up to the towers—these are in copper, but the copper shows signs of distortion, due no doubt to the extreme weather conditions. The view from the tower is magnificent on a clear day.

Unfortunately, a haze of smoke and fog obscured the distance, but the effect of the great bridges spanning the Hudson laid out in a bird's eye view before you, the Statue of Liberty, the ships, and the other skyscrapers emerging from the haze is one not to be forgotten.

The value of these towers for advertisement is obvious. When in Chicago I was told that 1,200 people had passed up the Tribune Tower that morning and that the daily average nearly approached 2,000 visitors. The Woolworth tower is visited by 300,000 people every year, each paying a few cents for the privilege of visiting the tower. The Strauss building at Chicago is instrumental in keeping the name of Strauss before the investing public. You are taken by a young woman guide, shown the banking chamber, the Board Room, the details being explained to you, and after viewing the tower you are asked to sign the visitor's book and you leave this building feeling that you are a person of importance.

It is interesting to study the results of the Architect's efforts to comply with the Municipal by-laws, to construct a huge building on a restricted site and yet to produce a building that is really graceful as well as useful.

Some have concentrated upon the effect from flood lighting at night time, as Raymond Hood with the Radiator Building. This building (a moderate skyscraper) rises up about 20 stories in a shaft of black bricks with nothing to relieve it except the window openings. The tower is set back from the building line and is finished with black bricks and gilt bronze terra cotta, the idea being that the glitter of the gold when the floodlights are turned on would give a very rich effect, but it does not look very impressive as it is not very graceful.

Unfortunately for a comparison, one has only to look along 42nd street to the west at the Bush Building by Messrs. Helme and Corbett, who have produced a tall shaft of a building surmounted with a really graceful gothic tower. This building rises 20 stories as a shaft in brickwork, but the plainness of the sides is relieved by long perpendicular lines and panels finished with

shields and a small gothic cornice. Each angle has a large lantern tower and the building is set back along front and sides and assumes a hexagon shape, breaking back still further in the upper three floors.

The arched openings are foliated above and the effect of the window openings at the side as well as the front when floodlit is that of a small cathedral suspended in mid air, and if one is lucky enough to see this building at sundown just before Broadway is lit up and the sun is sinking at the western end of 42nd street it is a sight well worth remembering.

In the Chicago Tribune, John Mead Howells and Raymond M. Hood have created a beautiful building, without doubt the most beautiful tall building in America. Built as a tower facing Michigan Avenue, it is of stone and is sufficiently isolated to stand out from any disturbing building that might detract from its beauty and the buttresses supporting the tower give that feeling of true gothic that gives this building the name of the Cathedral of Commerce.

The most original building I saw in America was the Bell Telephone building at San Francisco. Faced with terra cotta of a granite finish, this building rises over 30 stories above the pavement and has not a single European classical moulding or column in its design. Yet it gives the effect of

a gothic design when viewed at a distance. The exterior is columnar treatment with Aztec designs for ornament. The entrance archway is about 400 feet high and gives a very impressive appearance to the lower floors. The tower has eight large eagles poised as for fight, each eagle being fourteen feet high and these stand upon the floral caps to the columns that form mullions to the windows. The vestibule is faced with black polished marble and the lift enclosures are of bronze gilt.

The ceiling is most original. A cornice of square blocks in design, with Aztec decoration forms a border for a ceiling in blue, gold and red, with designs of dragon, fighting cocks and Chinese scrolls. It is said that the model of this ceiling was a Mandarin's Robe. This, with the Radiator Building, illustrates the originality of some of the American Architects.

Another interesting but ugly building is the "Day-light Building," 270 Madison Avenue, New York, by Messrs. Rouse and Goldstone, Architects. It was designed to give the maximum of light to the interior. Occupying a corner sight wholly for 5 floors, it rises 18 floors in two wings, flanking an area and then is zoned back to the 10th, 12th and 15th floors, in three steps. It is only interesting as a warning to Architects to combine grace with utility.

R. I. B. A. COMPETITIONS

THE Institute of Architects of N.S.W. has been requested by the R.I.B.A. to conduct competitions for prizes and studentships in 1927-1928 and has acceded to the request.

The Competitions open to Students in Australia are: The Tite Prize, The Soane Medallion or Victory Scholarship, and The Owen Jones Studentship, and they are conducted in 2 stages—preliminary and final. The preliminary competitions for the Tite Prize and the Soane Medallion or Victory Scholarship consist of 12 hour competitions "en loge" in each case, followed by a further period of six weeks and ten weeks respectively within which competitors may finish their drawings.

The Board is anxious to make it possible for oversea competitors to take part in these competitions and so have an equal chance with students at home in England of gaining one or more

of these traditional awards. The Council of the R.I.B.A. on the recommendation of the Board, have therefore approved the following proposals: I. The Tite Prize and the Soane Medallion or The Victory Scholarship.

1. The preliminary and final competitions for the Tite Prize and the Soane Medallion or Victory Scholarship shall be held in the Dominions by the R.I.B.A. Allied Societies overseas.
2. The R.I.B.A. Allied Societies overseas shall be empowered:
 - (a) To admit qualified competitors to preliminary competitions.
 - (b) To set the subjects for, and make all arrangements for, the conduct of the preliminary competitions upon the lines of the system adopted in England.

- (c) To consider and adjudicate upon the designs prepared by competitors in the preliminary competitions.
- (d) To select competitors in the preliminary competitions to take part in the final competitions.
- 3. The R.I.B.A. Allied Societies shall make all the arrangements for the conduct of the final competitions overseas.
- 4. The subject for the final competitions shall be sent to the overseas centres by the Board of Architectural Education.
- 5. The final competitions shall be held in the overseas centres so that the designs prepared by the competitors may be received at the R.I.B.A. in time for the final judging by the R.I.B.A. Juries in London.
- 6. The R.I.B.A. Allied Societies shall be asked to pay the cost of carriage one way and to send the drawings packed in rolls.
- 7. The drawings prepared in the preliminary competitions by students selected to take part in the final competitions, shall be sent to the R.I.B.A. with the final drawings for the information of the Board of Architectural Education.

II. *The Owen Jones Studentship.*

- 1. The R.I.B.A. Allied Societies in the Dominions shall be empowered to receive and consider applications from candidates for admission to the competition upon the system adopted in England.
- 2. The R.I.B.A. Allied Societies in the Dominions shall be empowered to select competitors to take part in the competition to be held at overseas centres upon the same system as that in operation in England.
- 3. The competition shall be held in the overseas centres so that the designs prepared by the competitors may be received at the R.I.B.A. in time for judging by the Jury for the Owen Jones Studentship in London.
- 4. The R.I.B.A. Allied Societies shall be asked to pay the cost of carriage one way and to send the drawings packed in rolls.
- 5. The drawings prepared in the preliminary competition by students selected to take part in the final competition, shall be sent to the R.I.B.A. with the final drawings for the information of the Board of Architectural Education.

In the case of the Tite Prize and the Soane Medallion or the Victory Scholarship, in order that the final competition finished drawings may be received at the R.I.B.A. by the 30th November, it will be necessary for the final competitions 12 hours "en loge" to be held in the last week of June each year. The competitors would then have six weeks in the case of the Tite Prize, and ten weeks in the case of the Soane Medallion and Victory Scholarship within which to complete their drawings. Competitors should be required to deliver their drawings to their respective overseas Allied Societies at the end of these periods, and all the drawings would be despatched to England not later than the 1st October in order to arrive there in time for the adjudication. It would be necessary for the preliminary competition to be held at the overseas centres about six weeks before the final competitions in order that the competitors to take part in the final competitions may be chosen and may be given time to make the necessary arrangements.

As regards the Owen Jones Studentship, competitors chosen as a result of the preliminary selection, to take part in the competition, should be sent the conditions so that they should reach them by the 1st August annually. Competitors are allowed six weeks within which to complete their finished drawings, and at the end of that time they should send them to their respective R.I.B.A. overseas Allied Societies. These drawings, as in the case of the Tite Prize and the Soane Medallion or Victory Scholarship, should be despatched from the overseas centres not later than 1st October, in order to reach London in time for the adjudication.

Tite Prize.—The competition will be open to candidates who have passed the R.I.B.A. Intermediate or equivalent examination or who produce certificates from responsible Architects to the effect that they have reached the required standard.

The Victory Scholarship.—The competition will be open to candidates who have passed the R.I.B.A. final or equivalent examination, or who produce certificates from responsible Architects to the effect that they have reached the required standard.

The Owen Jones Studentship.—The competition will be open to those who have reached the age of 23 and have passed the R.I.B.A. final or equivalent examination, or have produced certificates from responsible Architects to the effect that they have reached the required standard.

THE EXHIBITION OF STUDENTS' DRAWINGS

THE OPENING CEREMONY

THE Exhibition of Drawings from the Architectural Association's School of Architecture, London, together with drawings by students of the Schools of Architecture, Sydney University and Sydney Technical College, at Farmer's Gallery, was formally opened by the Hon. T. D. Mutch, Minister for Education, on October 11th.

Mr. Mutch remarked that one did not usually associate Commerce with Art, but in this respect Farmer's stood well out as a firm which did a great public service with no thought of gain or profit. The work on view was not competitive, but comparative. He was not suggesting that we had nothing to learn from our confreres on the other side, but he was convinced that the Australian work could stand comparison with that of England. This was something to be proud of, considering that this country was so isolated from the centres of artistic achievement. He could assure parents, who thought of starting their children on an architect's career, that all the essentials in the way of modern instruction were available, both at the University and the Technical College. He referred to the magnificent service rendered by the Board of Architects under the presidency of Mr. G. H. Godsell, whom he congratulated on his election as a Fellow of the Royal Institute of British Architects. With men of high standing at the head of affairs the future progress of architecture was assured. The efforts made by the Institute of Architects had done much to make the public appreciate what was good in architecture; and a stimulus had been given to the work of students by the institution of a medal for measured drawings, initiated by the Federal Council of the Australian Institute of Architects; and the establishment of the Jose-land Prize, awarded at the annual exhibition of the Institute of Architects. An effort had recently been made to compel all municipal councils to refuse to pass plans for building unless a registered architect had prepared them. In his opinion this was too ambitious a step at the present moment. An easier and more satisfactory plan might be to provide each council with a registered architect in an advisory capacity. At present the average council submitted its plans only to its engineer, who might be no more than a clerk of works.

Professor Hook, the President of the Institute of Architects, who introduced Mr. Mutch, remarked that American architects had the advantage of getting across the Atlantic and seeing the latest developments in Europe, while wealthy citizens in the United States enabled them to carry out some of the finest buildings designed to-day. Although Australia had not the same advantages, there had been far-seeing souls who had advanced the cause of architecture here. The early history of this country showed that Macquarie was a great patron of the arts.

Mr. G. H. Godsell, President of the Board of Architects of N.S.W., said that Australia's distance from the world's art centres had the effect of causing her to work the more energetically in order to keep abreast of them. On the subject of councils' building plans, he remarked that the Town Planning Association was expecting more from its scheme of compulsory employment of architects than were the architects themselves. The latter considered that the time was not opportune for a measure of this kind. Nothing could be forced on the people which the people did not want. In thanking the Minister for being present, he referred to him as the best friend the profession ever had.

Mr. James Nangle, Superintendent of Technical Education, observed that the freedom of the work by the London students required some understanding. He doubted whether it showed the same firm foundation on first principles as that produced locally.

Professor Wilkinson contended that this freedom was based on sound principles, and showed that the students were not bound too closely to tradition. After the Armistice Australians from every State worked at this school, where the training was quite sound and comprehensive. The difficulties in arranging the exhibition had all been solved by Farmer's, which had given every assistance.

Mr. George Wright, Managing Director of Farmer's, Ltd., said the firm had only been too pleased to help in an important enterprise of this kind. While the present board lasted it would always be ready to assist in all movements of national interest.

THE DRAWINGS

On viewing the work of the London students, one is struck immediately by its absolute freedom. It can be seen right through that the student has been taught to visualise the problem set before him and not to make a front elevation look "pretty." The student is evidently encouraged to develop his imagination and to design in the three dimensions. The whole of the work is excellent, and while stereotyped forms have been departed from, the designs are all based on traditional lines. The training of the student can be traced from the first year right on to the fifth. During the first two years, the student has a sound training in traditional work, while in the later years, under the restraining hand of the master, he is encouraged to give expression to his own ideas.

The drawings made in the first year show how the student starts first with geometrical drawing, the study of the elements of construction, then proportion, composition and technique in drawing is continued to the drawing of the orders. Renderings in wash and out-of-door done studies, together with instruction in the manipulation of colour washes, prepare the student for further work later on. A further study in traditional architecture is continued during the second year and design is taught by practice in traditional forms as the main elements. The Greek, Roman and Renaissance compositions were very good indeed. The examples of museum work, which is an important part of the curriculum, were most interesting.

The work during the third year involves design free from any limitation of style, and problems

are set which, though simple at first, become more complex as the year advances. Equisse here are most important, and aim at developing the imagination, being made as elastic as possible. During the fourth and fifth year there is an advanced course in design, the problems set ranging from designs for domestic buildings to larger compositions. The decoration and colour schemes are worked out in detail and applied to the subjects designed. A course of town planning is taken and schemes are worked out on surveys of actual sites.

The work of the students of the Schools of Architecture of the University, the Sydney Technical College and the Melbourne University Atelier, reach a very high standard, sufficient work being shown to indicate that the teaching in all these schools is on a very sound basis. In some instances, the student appeared to be more intent in making a fine drawing than in studying and developing his design. Probably the most original designs were those by Raymond McGrath, in the Sydney University section, his work being indeed excellent.

It was a privilege to be able to hang designs from the leading architectural school in England, the whole exhibition being most interesting and educational. The students should have derived great benefit from it. The Institute of Architects and Farmer's and different ones who helped are to be heartily thanked for arranging such a fine exhibition. It is to be hoped that the next will be an International Exhibition.

ANOTHER VIEW

By John D. Moore.

A study of the examples of students' work of the London Architectural Association's School of Architecture, shows very decidedly that this school is alive and vital. One feels that there is here expressed an intense interest and enthusiasm for teaching by the staff and an equally sincere effort to study by the student.

This school is training its pupils to think and reason for themselves, along definite logical lines, their individuality is encouraged, they are helped to express their own personality in their work, and this teaching and encouragement is based on sound and fundamental truths of Architecture. One also feels that the student is cognisant of the fact that buildings have a definite duty to per-

form, that they should express the purpose for which they are designed, that they are solid things and have weight and mass, and that draughtsmanship is only a means towards an end.

The teaching is essentially that of the twentieth century, it is not merely a cramming of facts, or of acquiring a nice knowledge of the contours of Georgian or Gothic mouldings, though these things no doubt are given their proportionate value in the curriculum. Apparently the main work of the school is to train students in the fundamentals of architecture, and to develop their creative instincts so that when they take their places among the practising architects of the future they will be capable of solving the

problems they will meet in a definite logical way, instead of merely repeating the past; they will, therefore, create and add something to their own period of civilization, as the masters of the past have done to theirs.

The main benefits to be derived from the exhibition by our own students are not just tricks of draughtsmanship, the fascination of a particular bit of colour, or the charm of a fragment of

design, but the realization that the study of architecture means much sincere effort carried out with intense enthusiasm; that they must study hard at the fundamentals of their art, get into the habit of thinking in masses; and that, except in some particular cases, planning must come first, mass design and construction second, and the consideration of details, textures, etc., will then follow and take their place naturally in the complete scheme.

After being exhibited in Brisbane, the whole collection, which was on view at Farmer's Gallery, will be shown in New Zealand, and will be sent from thence to London, where the drawings by the students of the Schools of Architecture, of the Sydney University and the Sydney Technical College, and also the Melbourne University Atelier, will be exhibited.

DRAWINGS AND WATER-COLOURS

AN exhibition of pen and ink and water-colour drawings, by Eric Thompson, who leaves for America next March, will be held in a room on the sixth floor, Manufacturer's House, O'Connell St., on November 22nd. Mr. Thompson, who studied under Julian Ashton, served his articles with Messrs. Joseland and Gilling, and is now on the staff of Messrs. Morrow and Gordon. He was awarded the Joseland Prize in 1923.

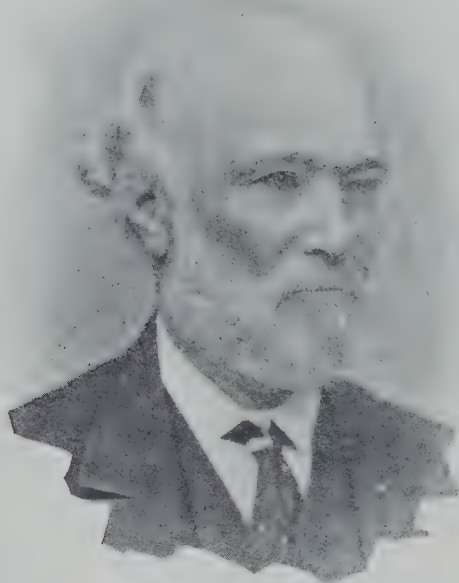
The collection will consist of drawings of city buildings and streets and a number of sketches made during a visit to New Caledonia last year. Mr. Thompson remarked that this was an ideal place for a holiday. It was often very hot, but the nights were cool and delightful. All the shops close between eleven and two, when the population has its siesta. There is but one main road and one railway.

Sunday is a gala day, a trip to the terminus of

the railway and a visit to the picture show, being the main attractions. Mr. Thompson says that everyone who goes to the island should meet Patrick Daley, a descendant of one of the first settlers, who can tell rare stories of the place. Living is cheap, and the life of Noumea is a constant entertainment.

Mr. Eric T. Cooper, who recently returned to Sydney after spending seven years abroad, will show a number of his water colours, in conjunction with Mr. Thompson's exhibition. He is on the staff of Messrs. Morrow and Gordon, and is also a member of the teaching staff of the Architectural Department, Sydney Technical College. He recently gave a very interesting lecture on his travels in England, the Continent, and America, where he remained most of his time abroad, to the members of the Architectural Club associated with the college.

ARCHITECT AND ENGINEER

*W. W. Wardell.*

THE proposal to demolish the Union Club in connection with the suggested extension of Elizabeth St. has revived fresh interest in its architect, W. W. Wardell, who designed and carried out so many important buildings in Victoria and New South Wales during his long and active career. One of the greatest of the early architects in Australia, the range of variety of his work was extraordinary. The following account of his career was contributed to *The Journal of the Royal Institute of British Architects*, January 13th, 1900. It was written by Mr. Edward Stanfield Wardell, shortly after the death of his father on November 19th, 1899.

William Wilkinson Wardell, born in London in 1823, was educated for the profession of a Civil Engineer, but a strong desire to be a sailor sent him to sea at an early age. After a few years he returned to his first destination and entered the office of Mr. Morris, one of the surveyors to the then Commissioners of London Sewers, who was also engaged in general practice, and afterwards that of Mr. W. F. East, a London Architect.

During the "Railway Mania" of 1843, and after, Mr. Wardell was largely engaged on surveys for projected lines, and at this time, when the attention of all England, or at least artistic England, was engrossed by what was called the "Gothic Revival", he made the acquaintance of Mr. A. W. Pugin, then a prominent leader in the movement, and soon caught the enthusiasm of his friend, devoting his spare moments to the steady sketching and measuring of the ancient buildings within reach of his railway surveys, the localities of which being constantly changing gave a very large field for such pursuits. He became an associate of the Royal Institute of British Architects in 1843, being elected a fellow in 1850.

In 1846 he received his first commission for a small church on the Thames, and immediately after another for one of greater pretensions at Croom's Hill, Greenwich. From this time to 1858 he erected, besides other works, some thirty churches and other ecclesiastical buildings in England and Scotland. In 1858 his health failed and he had to seek a more genial climate. Australia was suggested to him, and shortly after his arrival in Melbourne he accepted the appointment of

Chief Architect to the Government, and in the year following succeeded the late Major General (then Captain) Pasley, R.E., as Inspector General of Public Works and Buildings.

While filling this appointment, which he held for nearly twenty years, he had the responsible charge of the design and execution of all the works—except railways and roads—undertaken by the Government, embracing an extensive and varied range of engineering and architectural practice. Among the public works carried out under his professional charge and direction in Victoria may be mentioned the Alfred Graving Dock at Williamstown, the lighthouses at Gabo Island, Queenscliff, and Warrnambool, the Lattice Girder Bridge over the Yarra to the Botanical Gardens, Government House, the Royal Mint, the Lunatic Asylums of Kew, Ararat, and Beechworth, the Preston Reservoir of Melbourne Water Supply, the Harbour works at Belfast, the commencement of the works to form an entrance from the sea to the Gippsland Lakes, the improvement of the River Yarra and its Basin, wharves and jetties in Port Phillip and the coast harbours, the Melbourne Custom House, and many other works throughout the Colony.

In 1863 Mr. Wardell was Chairman of a Board appointed by the Government (of which Board the late Mr. Thomas Higginbotham, M. Inst. C.E., and Mr. R. W. Larritt, C.E., were members) to consider and advise as to the best means for preventing floods in the River Yarra and the low-lying lands of Melbourne. The Report of the Board recommended the removal of the old Princes Bridge and the construction of another with largely increased spans, and the formation of a canal direct from the city to the river's mouth, leaving the regimen of the river undisturbed, but providing wharf accommodation on the canal banks.

In 1875 Mr. Wardell was requested by the Government of West Australia to advise them on the subject of harbour works at Fremantle, and

after inspection he furnished a report and estimate but, as he was aware that the probable cost (over £800,000) was at that time beyond the means of the Colony, he suggested as an alternative scheme the construction of a railway from Perth to King George's Sound, a fine natural harbour, and the railway was carried out.

Mr. Wardell's official career closed in 1878, when he and other heads of departments, amongst them Mr. Thomas Higginbotham, M. Inst. C.E., and Mr. George Gordon, M. Inst. C.E., the County Court Judges, Police Magistrates, and nearly all the higher officials were deprived of their offices by a coup d'etat of the then government of Victoria, on a day known throughout the Colonies as "Black Wednesday". Since that time he had resided in Sydney, engaged in the private practice of his profession.

Among his works in Sydney may be mentioned the extensive wharves and warehouses known as the Grafton Wharf, St. Mary's Cathedral; St. John's College at the University; the Union Club House; the New South Wales Club House; the A.S.N.Co's warehouses and offices, the Union Bank and the Citizen's Life Assurance Co's offices. He was in 1890 appointed a Royal Commissioner to enquire into and report on the execution of certain Defence Works in Sydney, Newcastle and Botany; and in 1892 he was a member with Messrs. C. W. Darley and R. Hickson, M.M. Inst. C.E., to select a design for a swing bridge across Darling Harbour at Pyrmont; and was Chairman of the Board to advise on the disposal of the Parramatta sewage.

He was also the architect of St. Patrick's Cathedral in Melbourne, the English, Scottish and Australian Bank, the town mansion "Cliveden" of Sir W. Clarke, Bart., in that city; the Church of St. Ignatius, Richmond, and other works. Mr. Wardell was elected an Associate of the Institution of Civil Engineers in 1857, and was transferred to the class of Members in 1869.

A NAPOLEONIC LINK

By William Moore.

YOU come across the place in the bush about three miles from Eltham, Victoria. It is the homestead called St. Helena, to which is attached a church and a burial ground, the former being erected in 1842 by Anthony Beale, who was Paymaster General of the British East India Company at St. Helena during the period of Napoleon's imprisonment.

Mr. Beale, who retired with a pension of £500 a year when the Company gave up the control of the island in 1834, was the descendant of an Irishman who settled at St. Helena not long after it was taken possession of by the Company. The two St. Helenas—the isolated rock in the mid-Atlantic and the rural homestead in Victoria, are thus associated with the family and both are bound up in the magic name of Napoleon.

Mr. Beale had lived at the homestead twelve years when his domestic happiness was clouded by the death of his wife. A year or so later he erected to her memory a beautiful little private chapel with chancel appointments, stained-glass windows, and pulpit, in harmonious completeness, giving to the edifice the simple appellation of Rose Chapel. This was the second name of his wife, whose "happy life and peaceful death," the mural tablet informs us, it was his desire to commemorate. This picturesque building remained as part of the homestead for eleven years, and on the death of its founder, it was left, with three acres of ground, to the authorities of the Church of England. It is now connected with the Eltham Church, and is attended by the inmates of the old homestead and the people living on the adjoining farms.

The writer formed one of the congregation here on one Sunday morning some years ago. It took him about four steps to get from the door to the front pew, where he sat right beneath the pulpit; in front was a small chancel about five feet deep, and on the left was the area reserved for the organ and a pew for the choir.

"A few more years shall roll,
A few more seasons pass."

That was the burden of the hymn sung on the still, clear Sabbath morn. How simple the sing-

ing in its artlessness—how effecting in its earnestness! While the rustic chorus swelled within, the birds without were twittering in joyous harmony, and peace reigned over all.

"A few more suns shall set
O'er the dark hills of time."

It was the third verse. An old man sat as he sang from the large printed page of an ancient hymn-book, and the sun coming through the amber panes of an adjacent window, cast a golden aureole round his snow-white head. There will be a few more golden sunsets to lighten him down the dark hills of time, and then his humble place in the small congregation will know him no more. In the meantime he sings to the glory of his Creator his cheerful hymn of praise.

Adjoining the church is a small burial ground, reminiscent of a country churchyard in England. Here rests the old Paymaster-General, and by his side "Katherine Rose, his devoted wife," to whom the little church stands as a lasting memorial. Near by a massive stone slab marks the resting place of the late Mr. Graham Webster, formerly police magistrate at Bendigo, who died at Greensborough, in December, 1902, and about whose history the inscription gives the following interesting fact:

Here Lies Graham Webster,

*The last of his race, who descended
in one unbroken line from father to
son for a period of 779 years.*

The late magistrate belonged to the Fintry stock of the Grahams, of which John Graham, of Claverhouse, the Bonnie Dundee of Jacobite song and story, was a descendant.

Here also is the last resting place of Walter Withers, who lived at Eltham for some years. His "Tranquil Winter", which hangs in the Melbourne Gallery, is one of the rarest landscapes painted in Australia. In the Sydney Gallery you may see "The Storm" and "Nearing the Township" by the same artist.

Such are the historic connections of the little church at St. Helena, which stands like a shrine midst pastoral solitudes in the hush of the bush.

NEWS AND NOTES

"If all the world is a stage, then architecture is the scenery of that stage," said Mr. Alan Devereux to the Queensland Classical Association.

Conditions for the Joseland Prize in connection with the 1927 Exhibition are obtainable at the office of the Institute.

The Royal Victorian Institute of Architects is arranging to hold an International Exhibition in Melbourne next April.

Mr. Walter H. Morris, who is returning via America, is expected to arrive in Sydney by the "Niagara" in the middle of December.

Permission has been refused to erect a building of 40 stories, approximately 400 feet in height, in City Road, South Melbourne, close to Prince's Bridge.

The total value of the buildings erected in the Greater Brisbane area during the year ended September 30 was £3,275,129. Dwellings numbered 2,719, and other buildings 614, a total of 3,333.

There is a considerable difference of opinion regarding the proposal to create a memorial square in front of Parliament House at the east end of Bourke St., Melbourne. The original proposal for a State Memorial was a Shrine of Remembrance on St. Kilda Road.

Messrs. H. Y. Randerson, R. K. Ferris, W. M. Goode-Smith and F. G. Costello, of the Sydney Technical College, were successful candidates at the recent examination in Town Planning, held under the University Extension Board.

The competition for the Masonic Peace Memorial in London, one of the largest of recent years, was won by Ashley and Winton Newman.

The Royal Society of British Sculptors has awarded the medal for the best work of the year to Mr. C. S. Jagger, A.R.A., for his Artillery Memorial at Hyde Park Corner.

RADIO SETS

The use of radio sets is now so general that every new home is certain to have radio eventually. Provision should therefore be made for plugging in a loud speaker in two or three rooms, in order to avoid the necessity of trailing a long wire from one part of the house to another.—Sydney "Sun."

A STUDENT ABROAD

Mr. Meredith Smith has succeeded in getting a good position in the Housing Branch of the Architects' Department of the London County Council. He recently had the opportunity of joining a tour of inspection arranged by the Garden Cities and Town Planning Institute. Through Mr. H. C. Cortelli, the London representative of the Board of Architects of N.S.W., he was able to present letters of introduction to Professor Abercrombie, of the Liverpool University, who is the President of the Institute, and to Mr. W. R. Davidge, an authority on Town Planning.

SMALL HOMES BUREAU

The following constitutes the Directorate of the Small Homes Plans Service Bureau. Colonel J. H. Hurst (Chairman) and Mr. C. Mackie, appointed by the Institute of Architects; Messrs. B. Hadley and D. W. Weston, appointed by the Board of Architects; Messrs. W. Morris and James McIntyre, another member to be appointed. The Directorate is now engaged in drawing up memorials and articles of association and arranging the conditions of the competition. Full particulars will be given in the next number of *Architecture*.

DOMESTIC ECONOMY

A little less than 18 months ago the Public Works department accepted the tender of Mr. W. Bolger for the erection of a college of domestic economy on the site of the old Melbourne gaol, at the corner of Russell and Victoria streets. The cost was fixed at £37,481. The work was put in hand originally by reason of a gift of £25,000 made by Sir William and Lady McPherson, for the purpose of founding a college on this site for the training of girls in domestic work. The resultant building, apart from the very practical purpose it is intended to serve, is an architectural classic, and a distinct acquisition to this part of the city. The design was prepared by Mr. Evan Smith, chief architect of the Public Works Department.—Melbourne *Argus*.

JERRY BUILDING

It is certain that our forefathers were no tyros in the art of jerry-building, as witness the discoveries which have been made in the work of restoring St. George's Chapel at Windsor. Here it was found that the whole roof had been unsafe for

years, because the entire vaulting rested on springers, which should have been bonded into the wall, but which bonding Henry VII.'s workmen had, in a fit of light-heartedness, omitted. So there was no scientific reason why the vault had remained in position at all. Further investigations showed that a number of the buttresses were merely dummies, and that half of one entire wall was in consequence unbuttressed.—*The Home Journal*.

AUSTRALIAN WOODS

For years past South Africa and America have been cultivating the very timbers we have been neglecting, said Mr. M. Hannal, at a lunch-hour address at the Millions Club. From our own wattle seed, he added, South Africa was now supplying Australia with tanning material, and America had extensive forests of eucalypts. Did not America, early in the War, offer to supply £2,000,000 worth of timber grown from Australian seed? In Canada, Australian messmate was extensively used for flooring, but in Victoria nine out of ten floors were made of imported soft woods.

IN DENMARK

"The recent revival of Neo Classicism in Denmark has produced many notable buildings of outstanding architectural interest. Previously Neo Classicism in Denmark culminated in the works of C. F. Hansen about a century ago, but the architectural character of the old buildings is surpassed in some respects by that of some of the newer buildings erected by the revivalists. In appearance the newer buildings seem to be less bulky and more refined. These qualities probably are due to use of lighter forms of building construction in use at the present time. The works of Emanuel Monberg are notable for their harmony and balance, and every line and every tone of colour are evidence of the deep thought bestowed on them."—*The Architects' Journal*.

NEW FELLOWS

Mr. G. H. Godsell and Mr. James Peddle have been heartily congratulated on their election as Fellows of the Royal Institute of British Architects. At a dinner party given at Adam's Hotel, by Mr. G. H. Godsell, president of the Board of Architects of New South Wales, the host was felicitated by the Minister for Education on the distinction recently conferred on him by his election as a Fellow of the Royal Institute of British Architects. The occasion served also to celebrate his birthday, and on behalf of the Company, Mr. Mutch presented Mr. Godsell with a handsome

present of cut-glass ware. The guests included Professor Wilkinson, Professor Hook, President of the Institute of Architects; Mr. S. H. Smith, Director of Education; and Mr. A. Speers, President of the Master Builders' Association, as well as members of the Board and of the Council of the Institute.

ARC-WELDED STEEL BEAMS

The results of 21 comparative tests carried out in the material testing laboratory of the Carnegie Institute of Technology, Pittsburg (Pa., U.S.A.), have proved a decided superiority of arc-welded steel beams and columns over similar riveted members. The tests, which required two days, were made before more than 150 representatives of steel companies, general contractors, builders, technical societies, and publications. The tests were made in an Olsen tester, capable of exerting 400,000 pounds pressure on the beams. In some cases it was found the welded beams developed 50 per cent. greater resistance to pressure than those riveted.

According to Mr. G. D. Fish, a New York consulting engineer, it was proved that welded joints could be made without any misgivings as to safety, and furthermore, that a large percentage of saving in steel could be made because it is possible to have lighter beams and columns in arc-welded structures. This may mean an average saving of from 15 to 25 per cent. in the amount of steel used. An outstanding development of the tests was that the arc-welded connections develop a continuity of beams and columns, which will effectively stiffen high buildings against wind pressure. Mr. Fish says that the equivalent cannot be obtained with a riveted joint.—*Melbourne Argus*.

INTERNATIONALISM

"Historically it has been the vivid parochialism of City States, of Athens, or Venice, or the Netherland towns, or the concentrated self-consciousness of a great Court, or the Medici or the Grand Monarque, that have proved the most fertile soil of the arts, and in spite of the breaking down of the barriers and the interchange of ideas, it will remain so, at least for our time. All this is not to say that we may not learn from a study of the self-expression of other races. This throws new light on our own, and gives a keener relish to that sense of individuality, of peculiarity, which is the starting point for the artist, whatever his medium. Technically, we may learn new forms—not what to say, but how to say it, freshly, and in our own way. But, when all is said, art in any form, if it have a real flavour and signific-

ance, can no more grow out of internationalism than Esperanto could produce a literature.—*The Architectural Review*.

EARLY ARCHITECTS

In reply to a letter, asking him if he would be kind enough to give the names of the architects of some of the buildings mentioned in the recent article on The Anonymity of Architecture, Mr. K. R. Cramp, Hon. Secretary of the Royal Australian Historical Society, writes as follows:—

In reply to your letter of the 6th instant as to who were the architects who were responsible for the following buildings, I beg to state that in a paper read before this Society in July, 1924, on "Some Early Architects and Their Work," the buildings named by you are thus dealt with.

St. John's Church, Camden.—William Mortimer Lewis, Govt. Architect 1840, and after his arrival in 1842, E. T. Blackett.

Government House, Sydney.—E. Blore, London, superintended by Wm. Mortimer Lewis, and additions to Eastern Colonnade and entrance portico James Barnet, and several additions and alterations, which were made by Colonel W. L. Vernon, Government Architect.

St. John's Church, Parramatta.—Mr. James Houison, of Parramatta, father of the late Dr. Andrew Houison.

Old Government House, Parramatta.—(The present Junior King's School House). The back half or portion 1799 built by Governor Hunter—the whole of the front rooms added in Macquarie's time, 1818, by Lieutenant Watt, 46th Regiment.

I can find no record of Camden House (John Macarthur's), nor of "Wotonga," now Admiralty House. I think Edward Hallan did "Subiaco," but am not sure.



HAYLING, PORTSMOUTH

Etching, by Grant Lindeman.

INSTITUTE OF ARCHITECTS ORDINARY GENERAL MEETING

HELD, 12th OCTOBER, 1926

THE President, Prof. A. S. Hook, occupied the chair.

Apologies were received from Sir John Sulman, Mr. O. W. Weston, Mr. A. Speers (Pres., M.B. Assn.), and Mr. C. P. Shaw (Pres., Quantity Surveyors' Institute).

The Minutes of the General Meeting held on 7th September were confirmed and signed.

The following motion, of which due notice had been given, was moved by Mrs. Taylor:—

"As certain architects in Sydney will not employ draftsmen who have not been abroad, and annual registration fees are being utilised in sending students abroad, draftsmen and architects not in private practice who pay annual registration fees, are thus compelled to contribute to the success of their competitors; hence, I move that this unfair condition of affairs be placed before the State Premier for action, with the recommendation that the annual registration fee of £2/2/- is excessive for its true purpose, and that it be reduced to 10/6 per year for architectural draftsmen and architects not in private practice."

This motion was seconded by Mr. D. B. Dobson. Mr. James Peddle moved the following amendment:—

"As certain architects in Sydney recognise the increased worth of draughtsmen who have studied and worked in Europe and America, and all members of the profession recognise the value to the State and the Commonwealth of the broader experience, this Institute desires to place on record its appreciation of the Board of Architects' work in diverting unexpended income, from consolidated revenue, and using it for the provision of scholarships for students of exceptional merit; and also its appreciation of the generosity of the members of the Board in donating their own fees to this good work. The Institute is in complete sympathy with, and pledges itself to support, the Board's policy and activities."

The last sentence was withdrawn later.

This motion was seconded by Col. Hurst.

The voting was taken by members standing.

The amendment was defeated by 23 to 21 votes. The original motion was carried by 23 to 20 votes.

Mr. Peddle gave notice of motion to be discussed at the November General Meeting as follows:—
"That the resolution that has just been passed be rescinded."

The ballot for the new member resulted in the election of Mr. William Powrie, of Albury, as a member of the Institute.

The President introduced to the Members Mr. C. H. Bertie, who occupied the rest of the evening telling a most entrancing story in pictures of "How Sydney Grew," tracing the first faint meanderings of George Street around the shores of what is now Circular Quay, and carrying his audience by means of plans, sketches, photographs and anecdote, through wonderful years of city-building.

Unfortunately, the evening was all too short in which to finish the story and bring the account of the building up-to-date, and the President asked Mr. Bertie if he would consider continuing the lecture at a later date. Mr. Bertie said this might later be arranged. The Members thus have another most fascinating evening awaiting them in the future, when they may again follow the growth of the premier city of the South.

A vote of thanks to the Lecturer was proposed by Mr. Harris, who expressed deep appreciation of the interest and fascination of the subject of the evening, and seconded by Mr. A. W. Anderson, Vice-President of the Institute, who said that he had been simply enthralled by the re-awakening memories of his early life in Sydney. Many of the Members expressed their pleasure and enjoyment of Mr. Bertie's excellent story, and the hope of hearing more of it at some future date.

A goodly number of Members enjoyed refreshments at the close of the evening.

INSTITUTE OF ARCHITECTS
ORDINARY GENERAL MEETING
HELD 2nd NOVEMBER, 1926

THE President, Professor A. S. Hook, occupied the chair.

Apologies were received from Mr. A. W. Anderson, Sir Charles Rosenthal and Mr. R. V. Minnett.

The minutes of the last meeting, held 12th October, were confirmed and signed.

Mr. Peddle then moved: "That the resolution passed on the motion of Mrs. Taylor at the last meeting be rescinded." Notice of this motion had been duly given at the last meeting, and had appeared on the Agenda Paper for the present meeting. The motion was seconded by Mr. J. D. Moore. Mr. Peddle spoke very fully and directly to his motion, supporting each point taken by references to the Architects' Act, and authentic records of the Institute and the Board of Architects, and said he did not think that the unused money of the Board of Architects of N.S.W. could be used in any better way than in raising the tone of architecture in the way it is now doing in this State.

Mr. Godsell spoke of the splendid work the Board is doing in providing scholarships and thus offering opportunities for study abroad to the more brilliant architectural students of to-day, who otherwise would possibly not be able to so fully qualify themselves to assist this State in raising the standard of architecture in the years to come. He said he was proud of the close relationship and co-operation existing between the Board and the Institute, and felt sure that the Board would always have the loyal support of the Institute—that the work of each was essential to the other.

Both these speakers emphasised the fact that the suggestion in the motion now under revision that application be made to the State Premier with a view to having the fees of the Board lowered was futile, that the only way in which this could be done—were it decided that it was advisable or

necessary to do it—would be application to the Board itself—and each cited the clauses in the Architects' Act governing such action.

Several other members spoke for and against the motion before the meeting, and a division was then taken, which resulted in the carrying of the rescinding motion by thirty-five votes to twenty-eight.

Mr. Burgin, ex-president of the Electrical Employers' Assn., gave a short address on "The modern practice of wiring the home for Radio." The President then introduced Mr. Frank Walker, the lecturer of the evening, who gave a very interesting address on "Early Colonial Architecture," illustrated by some 60 slides showing some beautiful old churches and historical buildings all over N.S.W., Tasmania and Norfolk Island. Mr. Walker's lecture will be printed in full in the December number of "Architecture."

In thanking Mr. Walker for his most interesting lecture, the President told the members that a letter had been received by the Council asking that Mr. Walker be asked if he could see his way to repeating the lecture in Newcastle some time in December, and that Mr. Walker had promised to do this, though not this year, as his time is just now too fully occupied. Arrangements will, however, be made early next year for this.

As the hour was so late, the President asked permission to cut out the usual speeches of thanks, and himself expressed the thanks and appreciation of the Members, a vote of thanks was carried by acclamation, and the meeting adjourned for refreshments.

Copy of Professional Practice and Scale of Minimum Charges is given herewith, as recently revised and brought up to date by the Council of the Institute, who have devoted much time and consideration to this matter. This subject will be dealt with at the December General Meeting.

A SHORT TALK ON RADIO

By R Burgin.

SO much has been published regarding Radio, as Wireless Transmission is designated, particularly in association with Broadcasting, during the last few years, that one does not propose to trace its history in this country at the moment, but rather to draw attention to some of the opportunities which members of the architectural profession have of serving their clients, by providing better and more extensive facilities for taking advantage of the Broadcasting services in operation to-day, to say nothing of the increased benefits and pleasures which will surely come in the immediate future, in view of the rapid development and extension of Broadcasting in Australia.

In suggesting that the progress to date justifies the architect in taking Radio reception into account when planning a new building, the extent to which same is likely to be of service can be gathered from a few figures, without taking up a lot of time, in considering extensive statistics. Broadcasting has been in general use in Australia now for a little over two years. During that period in the State of New South Wales, the number of Broadcast Listener's Licenses in force has grown to approximately 45,000 at the end of September, 1926. Other recent figures indicate that an increase is taking place at the rate of about six per cent. per month. If this rate of increase is maintained, and it might easily be a more rapid increase, judging from the experience of other countries, in the course of the next two years we shall have licenses to the extent of one for every three or four homes. Such a proportion as this will, no doubt, confirm one in anticipating that in any new building equipped for convenient use of Radio reception, sufficient use of the facilities provided will be made to justify the small expenditure incurred.

Now, as to the provision which should be made in new buildings for Radio reception. Let us take the average residence first. It is suggested that when carrying out the general electric wiring of the building, provision should also be made for a separate circuit of wiring between the different parts of the house so that Headphones or Loud Speakers may be conveniently used at some distance from the location of the Receiving Set itself. This special wiring would comprise a similar grade of wire and casing to that used for ordinary electric light service and at each "listening-in" point the wiring should be connected to one of the many standard types of electric wall plugs in common use. The detachable portion of the plug is connected by a small cord to the Loud Speaker or Headphones in a similar manner to that in which a Radiator or other electrical appliance is connected and with the same facility the Radio apparatus is connected up from room to room. It is necessary to mention here that precaution should be taken to see that the type of wall plug used for the Radio service is not interchangeable with those used for the ordinary light and power wiring in the same premises. The Receiving Set itself, having been installed in, say, the Living Room, Library, or other convenient position, the number of other positions in which the Broadcasting programmes can be heard will only be limited by the number of plug points and other apparatus available. Installations of this kind already carried out have proved themselves well worth the small

initial cost, as they have provided a rapid means of taking the entertainment to the position where same can be best enjoyed, either to the fireside on a Winter's evening, or to the verandah on a Summer's night, to the Dining Room during meals, or to the bedrooms, kitchen, etc.

The cost of installing a circuit of plug points as suggested, could be estimated at approximately 50 per cent. of the rate payable for ordinary electric lighting points, the exact figures varying according to the different quality or type of material used, flush types of plugs being, of course, more expensive than ordinary surface type, etc. It will be seen, however, that for the expenditure of, say £5, a sufficient number of outlets in the average home could be installed during the erection of the building.

Another radio provision which should be made in the home is an additional standard electric power supply outlet in the room where the main Receiving Set is to be operated. The ordinary electric supply of 240 volts, or other standard pressure, is becoming extensively used for the purpose of charging, from suitable apparatus, the accumulator batteries and also providing the "B" Battery or high tension current required for Radio reception, thus avoiding the necessity of taking the accumulator away for recharging from time to time and also dispensing with the use of dry cell "B" Batteries. As the usual power plug installed in the room may be wanted for supplying an electric Radiator, or other appliance, at the same time, this additional plug will then be available for the sole use of the Radio apparatus. As the two plugs could be fixed quite close together the cost would be reduced to about half the usual rate per point, providing the circuit was not in this way overloaded.

Mention has just been made that the various parts of the house where "listening-in" plugs could be fitted include the Bedrooms. This brings to mind the class of building which is composed almost entirely of bedrooms, that is, our various Hospital buildings throughout the suburbs and country. Abundant evidence is available as to the great boon Radio has been to sick folk lying in Hospitals, the service being provided by means of ordinary Headphones (not loud speakers) so that the reception can be made available just to those patients fit and able to appreciate same without causing any interference to others. Some of the larger Hospitals have been fitted and others are in the course of installation. It is suggested to the Architect that in planning Hospital buildings in the future much expense will be saved if the provision of plug points is made to each bed position in the course of the general equipment of the building. An allowance of from 10/- to 15/- per bed will be sufficient to cover the supply and erection of plugs and wiring, terminating in a central distribution position ready for connection to the Receiving Set at any time.

In connection with "Apartment" or "Flat" buildings, where the tendency is always to provide a maximum of facilities for the tenants, the provision in each suite of an additional power plug for battery charging purposes, etc., as already suggested, is recommended, as well as the provision of some means of obtaining an efficient

aerial and earth connection for the Receiving Set. The more expensive types of Receiving Sets can be, of course, operated efficiently without either an external aerial or earth connection, but the types more commonly in use and within the means of the average person still require an efficient earth connection to the water service and some form of aerial outside the set itself but not necessarily outside the building. A length of insulated wiring fitted behind or above the picture rail is a method largely adopted with good results. If this wire and the earth are terminated in the respective contacts of an electric plug base as before mentioned, everything is ready then for connecting up the receiving set without any trouble or probable damage and disfigurement to the finished interior of the room. Another practicable scheme is the installation of several "listening-in" plugs in each Flat all connected to a central position in the building where one common Receiving apparatus may be installed and more or less automatically controlled.

Residential Hotels provide still further opportunities for a suitable scheme of Radio wiring to the various rooms. As the broadcasting service of to-day starts off with 7 a.m. Health Exercise and morning news

and finishes with a late news service about midnight, with a great variety of information and entertainment throughout the day and evening, many hotel guests would welcome a Radio speaker in their own bedrooms as they now welcome the private telephone and other conveniences, even if at a small extra cost sufficient to cover the outlay incurred providing the necessary equipment.

Passing on now to the modern Office buildings being erected in our larger cities, the provision of a Radio service from a central point right into the office of the busy commercial man of to-day will well justify the small outlay necessary.

With a properly planned equipment, for the outlay of a very few pounds per annum, the commercial man could sit at his desk and hear the latest Stock Exchange business announced, the day's livestock and produce prices reported along with much other valuable commercial intelligence which is broadcast throughout the day, or he could at 3.30 p.m. this afternoon, hear a running description of the Melbourne Cup broadcast direct from the Race Course right from the starting bell to the announcement of the Winner.

THE ARCHITECTURAL SOCIETY

THE report of the Sydney University Architectural Society for the year 1925-26, presented at the Annual General Meeting on October 19th, showed a highly successful year. During the year many functions of a social nature were held, among them being the annual farewell dinner to Graduating Students and the Annual Dance. Lectures were given to the Society by Professor Wilkinson, Dr. W. A. Woolnough, Professor Todd, Mr. Norman Carter and Mr. Norman Weekes.

Travelling Scholarships were won by 2 members: Mr. Manderson, the Board of Architects' Scholarship for Study in Europe, and Mr. Raymond

McGrath, the Wentworth Travelling Scholarship.

The faculty was well represented in sport this year, winning in conjunction with Economics, the Fishman Cup for Athletics. A Faculty Tennis Tournament was held on October 9th, at which many graduates were present, Miss Peden and Mr. Hargreave being the winners.

The Office-Bearers for the ensuing year are—Patrons: Professor L. Wilkinson and Mr. G. H. Godsell; President: Mr. J. A. V. Nisbet; Vice-President: Mr. J. McE. King; Hon. Secretaries: Miss Jessie P. Northcott and Mr. Ian B. Fell; Hon. Treasurer: Mr. D. B. Shepherdson.

Professional Practice (abridged) and Scale of Minimum Charges. Condition of Engagement.

The Architect is employed subject to the following Conditions founded upon the Customs of the Profession, and his remuneration is payable according to the Scale of Charges hereinafter stated, which Scale is fixed and accepted on the basis of the same conditions:—

(a) That the general supervision which the Architect will give to the work is such periodical inspection by him or his deputy as may be necessary to ensure that the work is being carried out in accordance with his design, but constant superintendence of the works does not form part of the duties undertaken by him and is not included for in the following Scale of Charges.

Note.—Wherever "him," "his," or "he" is mentioned it is to be taken to include "her" or "she."

Page 3.

(b) That in all cases in which constant superintendence is required a Clerk of Works shall be employed for this purpose. He shall be nominated or approved by the Architect and appointed and paid by the Client. He shall be under the Architect's direction and control, but the Architect shall not be held responsible for any fraud or negligence on the part of the Clerk of Works.

(c) That the issue of a certificate by the Architect for a payment to the Builder implies only that in the Architect's opinion work has been done at the date of the certificate entitling the Builder to the amount stated in accordance with the agreement, and to the best of his belief in accordance with the contract or order.

(d) That the Architect has authority to give such orders on behalf of the Client as are necessitated in the Client's interests by constructional emergencies.

(e) That the Architect is empowered to make such variations as he may reasonably consider desirable in the Client's interests in carrying out the works, provided that no material addition to the cost of the contract or order is caused thereby.

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(f) That fees of any Consultant or Consultants retained for any part of the work by the request of the Client shall be paid for by the Client.

(g) That all drawings, specifications, and documents prepared by Architect shall remain in his custody. One copy of contract drawing to be furnished on request to the proprietor. The copyright in all drawings shall be reserved to the Architect.

(h) That the Quantity Surveyor shall be nominated or approved by the Architect. His fees shall be included in the contract sum, and be paid by the Builder on the issue of the first certificate. In the event of the work not being proceeded with, the Quantity Surveyor's fees to be paid direct by the Client.

SCALE OF MINIMUM FEES

Clause 1.—For taking the Client's instructions, preparing sketch designs, making approximate estimate of costs by cubic measurement, or otherwise, preparing drawings and specification for the purpose of estimates, obtaining tenders, advertising on tenders, and in preparation of contract, selecting and instructing Consultants, supplying copies of drawings and specification required by local authorities, such drawing, etc., as the Architect considers necessary for the Clerk of Works, if any, and supplying to the Builder one copy of the drawings and specification and such other details as are necessary for the proper carrying out of the works, general supervision as above defined, issuing certificates for payment, and passing and certifying accounts, the charge in respect of new works is to be a percentage on the total cost of all executed works as follows:—

Page 5

(a) If the contract or order exceeds £2,000 the fee is to be not less than six per cent.

(b) If the contract or order does not exceed £2,000, the fee may be 10 per cent. In the case of works costing £100 graduated to six per cent. in the case of works costing £2,000 as the special character of such works may render appropriate.

(c) That in the case of factory buildings or buildings of similar type used for commercial purposes, the estimated cost of which does not exceed 10d. per foot cube, the minimum charge shall be five per cent.

Clause 2.—(a) For services in connection with alterations, additions, or repairs, other than in the extension work carried out to the same design, the minimum charge shall be seven and a half per cent.

(b) For assessment of damages due to fire or similar causes and adjusting claims for compensation:—
One and a half per cent. on the amount of assessed damage.

For preparing plans and specifications and obtaining tenders in connection with such adjustment or reinstatement:—

Three per cent. on the total expenditure.

For supervising reinstatement in connection with such damages and passing accounts for payment:—

Three per cent. on the total expenditure.

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SPECIAL FEES FOR FITTINGS, DECORATIONS, ETC.

Clause 3.—For specially designed fittings, decorations, furniture, sculpture, leaded or stained glass, ecclesiastical or other memorials or monuments and similar special works, other than buildings the minimum charge shall be ten per cent. on the total expenditure.

A special fee may be charged for advice in connection with purchase and installation of machinery.

FEES FOR OMITTED WORK

Clause 4.—In addition to the percentage on the total cost of executed works, the Architect is to be paid in respect of all works included in the tender, or ordered by the Client, but not executed, two-thirds of the charge which would have been due upon them had they been carried out.

FEES FOR PARTIAL SERVICES

Clause 5.—If the project or part of it be abandoned, or if the services of the Architect cease or are dispensed with before the contract is entered into or order given, the charge in respect of the works abandoned or for which the Architect was employed (as the case may be) are as follows:—

(a) For taking Client's instructions, preparing sketch design sufficient to show accommodation and type of design and making approximate estimate of cost, the Architect shall be entitled to charge one-fourth of the percentage stated in Clauses 1 and 2 (as the case may be) on the estimated cost of such works.

Page 7.

(b) For taking Client's instructions, preparing sketch design, making approximate estimate of cost, and preparing drawings and particulars sufficient to enable quantities to be prepared or a tender obtained, the charge shall be one-half of the percentage stated in Clauses 1 and 2 (as the case may be) on the estimated cost of such works.

PAYMENT OF FEES IN INSTALMENTS

Clause 6.—On completion of contract drawings and specification the Architect shall be entitled to an instalment of one-half of the charge calculated on the total amount of the contract or order, and no part of such payment shall be reclaimable from the Architect in the event of the subsequent abandonment of the works. The remainder of the Architect's remuneration shall be payable by proportionate instalments from time to time as the work proceeds.

FEE WHEN WORK IS EXECUTED WITH OLD MATERIALS, ETC.

Clause 7.—In all cases where work is executed wholly or in part with old materials, or where material, labour or carriage is provided by a client the percentage shall be calculated as if the works had been executed throughout by a Builder, and with new material.

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FEE FOR DAY LABOUR OR SEPARATE CONTRACTS

Clause 8.—When the work is carried out by day labour or separate contracts, or on a percentage basis, involving the checking and passing of accounts or

time sheets, the minimum charge shall be seven and a half per cent.

When work is so carried out, the Architect shall in no way be held responsible for the cost of such work, nor for any of the risk or liability attached to the office of the Builder, the Client in all such cases taking upon himself all such risks, liabilities, and responsibilities.

SERVICES NOT INCLUDED IN PERCENTAGES

Clause 9.—The foregoing percentages do not cover the following services, for which, and for any other services not covered by any payment herein provided for additional charges may be made in accordance with the amount of work involved:—

Advising as to the selection and suitability of site. Negotiations relating to the site or building. Surveying the site or building and making surveys, measurements, and plans of existing buildings.

The preparation of further sketch designs necessitated by a material alteration in, or addition to, the Client's instructions, or altering the working drawings and specification in consequence thereof prior to the com-

Page 9.

mencement of the works. Altering drawings, or preparing new drawings, and other services involved in consequence of variations or additions desired by the Client after the commencement of the works. Making extra drawings for the Client's or Builder's use, and making drawings for the negotiations with ground landlords, adjoining owners or others, and making applications for licences and consents.

Making arrangements in respect of party walls and other easements, reservations or restrictions. Services in connection with litigation or arbitration. Services consequent upon or resulting from the death or bankruptcy of Builders or the failure or neglect of Builders from any cause whatever to carry out the works in accordance with the contract or order or consequent upon the fraud or negligence of the Clerk of Works. Services in connection with fire, flood, or tempest during the execution of the works, and services in connection with the planning of grounds or gardens.

APPROVAL OF LESSEES' PLANS

Clause 10.—For approving plans submitted by a lessee and for inspecting the work during its progress so far as may be necessary to ensure the conditions being fulfilled, and certifying for lease when required, the charge is as follows:—

Page 10.

For each £100 or part of £100 of the total cost up to £500, two and a half per cent., the minimum fee being £3/3/-. For each £100 or part of £100 from £500 up to £5,000, one and a quarter per cent. For each £100 or part of £100 from £5,000 up to £10,000, three-quarters per cent. For each £100 or part of £100 from £10,000 up to £20,000, one-half per cent. Above £20,000 by arrangement.

LITIGATION AND ARBITRATION

Clause 11.—For qualifying to give evidence, settling proofs, conferences with Solicitors and Counsel, attendances in Courts or before Arbitrators or other tribunals, and for other services in connection with litigation and arbitration the charges are based upon the time occupied and professional standing of the Architect with a minimum fee of £5/5/- per day, or

SANITARY SURVEYS

Clause 12.—For inspecting, reporting, and advising on

sanitary condition of premises, charge is by time in accordance with Clause 17, the minimum fee being £3/3/- in addition to the cost of assistance and appliances.

MEASUREMENTS

Clause 13.—This does not apply when the Architect's fees are covered by Clause 1.

(a) When an Architect is instructed to measure and value for the purpose of arriving at the amount of an interim certificate the minimum charge is half per cent. upon the amount. Minimum fee, £2/2/-.

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(b) Measuring for and making account of variations upon building works, including pricing, the minimum charge shall be two and a half per cent.

DELAPIDATIONS

Clause 14.—For estimating dilapidations and furnishing or checking a schedule of the same, the charge is five per cent. on the sum agreed, the minimum fee being £5/5/-. For negotiating settlement of claim and for other services, the charge is by time in accordance with Clause 17.

Where one Architect acts between both parties, the minimum charge shall be scale and a half, divisible between them.

VALUATIONS

Clause 15.—For valuing property for whatever purpose, the charge is as follows:—

Minimum fee of £3/3/- on each property valued, provided the valuation of a single property does not exceed £1,000.

Minimum fee of £4/4/- on each property valued, provided the valuation of a single property does not exceed £2,000.

Minimum fee of £5/5/- for valuations over £2,000 and not exceeding £5,000.

Minimum fee of £7/7/- for valuations over £5,000 and not exceeding £10,000.

Special fees for valuations over £10,000.

TRAVELLING TIME

Clause 16.—If the work should be beyond a radius of 10 miles from the Architect's office an additional charge may be made under Clause 17.

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TIME CHARGES

Clause 17.—In cases in which charges are based upon the time occupied, they will depend upon the professional standing of the Architect, the minimum fee being £5/5/- per day, exclusive of charges for Assistant's time.

EXPENSES

Clause 18.—The foregoing scale is, in all cases, exclusive of travelling and hotel expenses, and all other disbursements, which are to be charged in addition at first-class rates.

Clause 19.—Variations from this Scale of Professional charges may be made to meet special circumstances provided permission has been obtained from the Council of this Institute.

Clause 20.—Variations from this Scale of Professional charges may be made to meet special circumstances in connection with national or charitable institutions, but in all such cases the full charge for services involved should be made, and any reduction therefrom definitely published and announced as a donation from the Architect concerned in the statement of accounts



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THE OFFICE BUILDING

by Ernest A. Scott

THE preparation of plans and superintendence of the erection of a large block of offices is one of the most interesting projects that can be considered by an Architect. Some of the matters mentioned in this article may be considered by many Architects and others to belong more to the business of Land Agent than to an Architect. This is not so, for unless the latter is equipped with all and more than is contained in this article, he will not be in a position to properly advise his client.

The quality of the accommodation supplied in these large office buildings marks to a very great degree the business standing of the city, as well as the refinement of the business population.

It is computed that $5\frac{1}{2}$ to 6 per cent. of the population of large cities is employed in offices, making it their home for the greater part of their working hours. It is therefore evident that the project should be approached with the greatest care and consideration. It may be said there are three classes of office building.

1st. The building erected entirely for letting purposes as first class offices, as an investment.

2nd. The building erected by some Banking or Insurance Institution, or other such Company, with a view of advertising its standing, and providing a monumental home for itself.

3rd. The building erected to supply both shops and offices.

It is the first class that I proposed to deal with in this article, but to a certain extent it is applicable to Nos. 2 and 3.

When a client approaches an Architect with a proposition of this nature, he places on him a very great responsibility, for it is his duty to equip himself, if he does not already possess it, with all necessary information to guide his client in the very considerable investment of his capital.

The time has fortunately passed when tenants are satisfied with dark, badly ventilated and unattractive offices. They now require and will pay well for offices well laid out, lighted, and ventilated and of attractive appearance, and provided with the last thing in comfort and convenience; and it should be the object of the Architect to give them all they deserve, and, if possible, more than they expect, always keeping in mind the construction and maintenance cost, as this class of building is first and all the time a business proposition, and the owner looks for, and should get, a fair return on his investment. The Architect should impress on his client not to hurry him while the scheme is in its infancy, for this is the time the basis of the project is being laid and any oversight may mean failure. The Architect should get in touch with the Agent into whose hands the letting of the completed building is to be entrusted. If he is a competent man he can afford a great deal of assistance and information. The American Architect is very fortunate in being able to call to his assistance The National Association of Building Owners and Managers, who have completed very useful statistics from many points of view that are extremely useful. The first duty of the Architect is to satisfy himself that there is, and will continue to be, for a reasonable time a demand for office accommodation of the class he proposes to supply. In Sydney to-day, and for years to come, there is, and will be, this demand. There are some old and obsolete offices vacant, and it is quite right they should be, they are relics of a bad past that should disappear.

Having determined that the proposed building is certain to be a financial success, the next and most important matter is the selection of the site, as it is to be remembered that a good building on the wrong site is little better than an inferior building. There are several matters to bear in mind when selecting the site, viz., Convenience of transit, closeness to the business centre, and its relation to Stock Exchange, Post Office and

Principal Banks, Aspect, Class of adjoining property, Cost of foundations, as in Sydney sites, only a hundred feet apart, may make some thousands of pounds difference in this direction. A corner site is of course very desirable, but as there are few, for the purposes of this article, a site about 55ft. x 160ft. is proposed with only rights of light from the front street, having an easterly aspect. In America the retail area is considered the most suitably site for office buildings. This is not so in Sydney, in fact quite the reverse, shops on the ground floor reduce the letting value of the upper floor for office purposes, the supposed necessity for awnings over all shops, destroying the architectural effect and obscuring the entrance, which is a very serious defect. Strongly advise your client against investing in a small block, as it is most difficult to make a satisfactory return on same. The unearning part of the site such as light areas, entrance hall, lifts, corridors, lavatories, etc., occupy too great a proportion in relation to the letting area. Again the maintenance costs, such as Caretaker, running of lifts, cleaning of corridors and stairs in the small scheme, are out of all proportion to that of the larger one in relation to the rental returns.

Having selected a suitable site the building is the next consideration. This may be divided under the following heads in order of importance—The lay out or plan, the construction, the equipment, the exterior treatment and the internal decoration. As the problem is to obtain the best return on expenditure, and with a view of reducing the site cost in relation to the letting area, it will be wise to carry the building up to the 150ft. limit, which is far too low in my opinion. In buying the site, the owner should estimate his purchase on the area in square feet, not by the frontage, as he derives his rent on the square foot basis. Further, the front offices, with the exception of the ground floor, and in a much less degree the first floor, have no advantage in rental value over the remainder. This may be doubted by some, but it is an ascertained fact in my experience. In planning the building, the aim should be to give the greatest proportion possible of letting area in relation to the non-letting area, without sacrificing good lighting, this is all important, as badly lighted floor space is of little value. Before starting the plan, enter into an arrangement with the owner at the rear to join in the back light area, each giving 7ft. 6in., this will give a light area 15ft. wide, which will be sufficient. This will provide for light to back and front, in addition you will require the two cross areas 15ft. wide, thus giving three blocks approximately 40ft. wide, all parts being 20ft. from

light, which is the greatest distance that good light can throw, especially if broken by glass divisions, without relying too much on artificial light if the floors are kept reasonably low. The American unit is 35 to 37 feet, which is far too much unless the floors are very high and entirely unobstructed. The Northern light should be availed of as much as possible, as this light is fully 20 per cent. more penetrative than Southern, and it is the penetrative light you want. Avail yourself of any already constructed light courts on the North side where possible, to lengthen the throw of light to the lower floors. The cross area will be found much superior to the longitudinal area when it comes to lighting up the subdivisions. Do not fear making your light courts large, there is no capital cost in them other than the land; and this charge can be diminished by carrying the ground floor offices across the areas and lighting with roof and high lights, leaving areas at each end for light and ventilation to the Basement.

With a view of extending these Northern areas as much as possible, keep your entrance hall and corridors as far South as possible, leaving only sufficient on Southern side for lifts, staircase, lavatories, etc., with supplementary light courts between to supply them with the light necessary. The plan should be as elastic as possible, that is, restrict to the smallest area you can without cramping the necessary fixed items such as lifts, and lobbies, lavatories, staircases, cleaners' cupboards, &c., so that as much as possible of the floor space may be let in large or smaller offices as required, and throwing all the corridor you can into the letting area, thus increasing rental return and saving constructional upkeep and costs. The tenants' entrances should be as marked as possible, and from the main corridor. The distance between stanchions is very important. The American standard is approximately 17ft.; it should be quite 25 to 27 feet, as it helps so materially in subdivision that the return will amply pay for increased construction costs. Do not be economical of space in planning your Entrance Vestibule, remember you have many floors to let and the sacrifice of area, even on the valuable ground floor, will be repaid many times over if you establish a good tone to the building by its striking and roomy Vestibule. Stand the lifts back a little from the line of main corridor, so that waiting passengers do not obstruct it.

Try over several plans for subdivision of the large letting areas before you determine the position of doors and windows; and it will be found that smaller individual windows divided by narrow piers are better than large ones, unless

divided by wide mullions for the divisions to butt against. Nothing looks worse than partitions ending against windows or narrow frames; multiples of five will be found convenient for the centres of piers or mullions between windows when it comes to subdivisions. The windows are of little use below table height, but should be carried up to ceiling. The box frame is hard to improve upon with a plate glass hopper at bottom to deflect the draught from loose papers on the table. Avoid having windows of different shape, for nothing looks worse in an otherwise well appointed office. There should be provided in a building of this size, at least 6 Strong Rooms per floor, placed within the letting portion at the greatest distance from the light so as not to obstruct. They will insure better letting. The subdivision partitions should be standardised, easily removable to allow for the expansion or contraction of tenants' requirements. It should be of such a nature that no plaster is required on the job. Avoid cornices, they obstruct the subdivision partitions; and keep ceilings perfectly plain for the same reason. Picture, chair rail and flush skirtings should be provided, and where skirtings are in Keens a quarter round should be provided at junction with floor. A great number of subdivisions should be avoided, as large open spaces for the staffs of various offices saves capital cost, increases the circulation of light and air, gives better supervision, and saves room.

It is a good idea to charge the tenants separately for their partitions, say 10 per cent. on the cost, as it may reduce the number required and is a fairer plan. Good ventilation should be provided at the window heads. In case of the front windows on the lower floors to prevent the noise and dust, double windows should be provided.

It can be taken that each person in an office requires approximately 70 square feet, and that there are generally $2\frac{1}{2}$ males to each female, this will enable you to arrive at the lavatory accommodation required. These should be roomy and well lighted; 1 W.C. and lavatory basin to every 20 persons, and 1 urinal to every 30 in the male lavatories will be ample. No W.C.'s. to be private to any particular office. Too much attention cannot be given to the lavatories, they should be tiled or slabbed to at least the door heads, the divisions of Terrazzo or Marble, 6ft. 6in. high. The floor should be impervious and coved. The doors not more than 2ft. 2in. wide, opening inwards, kept 9in. off floor, and down a similar distance from top of divisions, hung in solid wide hardwood, or Marble or Terrazzo frames to suit divisions standing on a base of the floor material coved up to receive same. The divisions should

be kept 6in. off floor and supported from wall and frames, and supported in centre by metal standard on coved base. All fittings should be kept off the floor on cantilever principle, the stall urinals raised with 6in. riser, and sufficiently wide tread. The toilet paper holders secured to back of doors, also hook with rubber buffer should be provided to protect the divisions. The windows should be 4ft. off floor to ceiling, the top one-third a fixed hopper sash open at 30 degrees, the lower two-thirds a sash hinged to sill so that it can be opened for extra ventilation and cleaning as required and secured by chains and bolt. Louvres are objectionable as they become dirty and are hard to clean. All pipes should be nickelled copper $\frac{3}{4}$ in. off walls—pipes touching walls are bad dirt collectors. The lavatory basins should discharge direct without traps into a metal floor gully, and thence to 4in. stack, $2\frac{1}{2}$ in. lavatory wastes, as also back vents to lavatory wastes are unnecessary and unsightly. In a building of this class lavatories for each sex should be provided on every floor. The American principle of 2 floors for men then 1 for women is undesirable, as no one should have to leave the floor for these conveniences, as it means waste of time, loitering and the unnecessary use of lifts and stairs. A small Sink Room for the tenants should be provided on each floor, as also a broom and bucket room with sink for Cleaners, and somewhere near the Caretaker's quarters, a Luncheon and Changing Room should be provided for the lift attendants and male cleaners, and a changing room for the women cleaners, and separate lavatory accommodation for both sexes. The staff should not use tenants' lavatories. In a convenient position near the lifts a comfortable Caretaker's Quarters should be provided, also Laundry and flat roof for drying purposes, also ample storage for supplies for the cleaners, also in the Basement storage room for removed partitions, ladders, waste paper, &c. This provision is too often neglected. A building of this class will require three lifts, with a capacity of 18 persons each, travelling 450 to 500 feet per minute, one being express, another dual control, and must be of the very best quality, one having a full opening front for furniture removal. should all be fitted with floor indicators—they form the most important item of the building equipment.

The height of the floors should be, with the exception of the ground and 1st floors, 11ft. from floor to floor. The ground floor 13ft. and the 1st floor 12ft. slightly varied as necessary to work in as many floors as possible in the 150ft. height, each additional floor is

very worth while trying for, not including Lift House and Work-shops on roof. These should be architecturally treated so as to improve rather than disfigure the skyline. The Height of Building Act will apply to this building and must be observed as regards lifts, staircases, fire alarms and hydraulic service. The staircases should be plain and easy, they do not enter very materially into the daily life of the building, as everybody uses the lifts.

The electric lighting of the building is next only in importance to the lift service, it should be of the very best quality, any saving of money being a great mistake. The Entrance Lift Lobbies and Corridors should be well lighted by good fittings of the enclosed variety controlled by key switches; in the letting areas the subdivisions not yet being decided upon, the position of lights is somewhat difficult. Prepare several subdivision plans to test the probable requirements before installation, generally speaking the points should be approximately 12ft. centres, and no more than four on a circuit. The shades and lamps should be good and plain, the switches of either wall or ceiling being only the best quality. Power points for radiators will be required in the proportion of one point to every 150 square feet, fortunately, the temperature in Sydney is mild, generally standing somewhere near 60 degrees; and as 70 to 75 degrees is a pleasant office heat no great amount of heating has to be allowed for. Keep all conduit pipes larger than usual and of the best quality. As the tenants have to be metered separately, it will be seen that particular care must be taken in the lay out. All electric fitments and re-wiring should be capable of execution within the tenancy. A vacuum cleaner should be installed, the pipes being as flexible as possible and not too large for convenience in handling—it should save in cleaning expenses. Storage tanks of good capacity, constructed of tinned copper, must be provided on the roof for the water supply, and all pipes throughout should be copper nickelled wherever exposed. A patent hydrant booster will be required for the Hydrant Service at the front of the building. Hose taps should be provided in all light courts to allow of hosing the walls and floors of areas, and also at front for a similar purpose.

The introduction of a Telephone system must be carefully considered, as also the Dictaphone within the various offices. Proper consideration of these points will save much damage to the building.

Ample provision in the way of recessed ducts must be provided for water hydrant, electric light and telephone cables, and provision carefully

thought out for position, and provision for switch room in basement, fire switch at entrance, and supplementary switch boards on all floors for electric light and telephones. A Letter Shoot to box on ground floor from all floors should be provided. The construction of the building must be fire resisting throughout—what system to be followed rests with the Architect. The floors of letting portion finished in cement, that of corridors with ornamental covering at the discretion of the Architect. The tenants will cover their own floors, an underlay of cork under the lino will greatly add to their comfort. The exterior of light courts other than occupied by windows should be tiled in white glazed tiles, carefully set, as they are liable to form pockets at the corners that will allow damp to penetrate the walls.

The exterior elevation of the front should be carefully considered to indicate as much as possible the nature of the occupation, and should be as attractive as the Architect can make it. The base to shoulder height should be of polished hard stone for purposes of cleanliness and durability, apart from architectural effect. The windows of the front should be in plate glass, the remainder in wired plate in steel frames, especially in light areas. Special care should be taken that the windows can be reglazed and cleaned inside the office. The side walls where not protected by other buildings must be painted or treated in some other manner to stop damp penetration. The roof may be flat concrete or otherwise at Architect's discretion, but part should be flat to provide drying area for Caretaker.

The entrance to the Main Vestibule should be wide and attractively treated, it is a very important matter. Separate entrances should be provided for offices to let on ground floor—this increases very substantially the letting value. Avoid if possible name plates on the front, and if you must have anything of the sort, have neatly designed alphabetical index boards, 1½ in. to each 400 feet of occupancy is sufficient.

The Entrance and Vestibule contributes very greatly to the success of the building. It must be attractive but need not be too ornamental. The walls should be marble or tiled up to picture rail height, the floors slightly more decorative than the rest of the Corridors. Sufficiently large Alphabetical Indicator Boards should be provided with moveable letters. The ceiling should be attractively enriched, but it is to be remembered that all floors except the ground, and to a lesser degree the 1st Floor, are all of the same value, so the treatment of the Corridors and Lift fronts, lobbies, etc., should be kept in same treatment.

It looks poor to start lavishly and finish cheaply. The ground floor should be slightly richer in treatment, but not to the extent of being strikingly superior. Whatever wall facing is decided on for ground floor should be carried throughout all upper corridors as a dado fully 5ft. high. All walls above dado should be attractive and treated in flat paint or imitation stone, the ceilings in all cases being white.

The woodwork throughout the building should be high class hard wood such as Maple, filled, stained and polished. Avoid painted woodwork, it is cheap looking and costly in maintenance. Too much carving or moulding in any direction should be avoided.

Nothing should be allowed to be done in the building without the advice of the Architect, such as tenants' screens, divisions, counters, &c—the writing on doors or windows—the class of blinds or shades to be used. No projecting sun shades should be allowed, they become untidy and obstruct light to the floors below, especially in light areas.

There are many other matters to be carefully considered in a project of this nature, but these remarks will indicate to the student or younger Architect, who has not had the responsibility of work of this class, to whom this article is really addressed, that the office building can be full of interest, and give ample room for serious thought. The treatment will vary in accordance with the

site and conditions, but generally speaking the principle will hold good.

Depreciation is one of the most important items to be guarded against, as it is of course desirable to make the proposition the best rent producer as long as possible.

The inevitable depreciation by decay cannot be prevented, but it can and should be deferred as long as possible. Nothing but the best and longest lasting in all trades. But depreciation by obsolescence is quite 33 per cent. more rapid, therefore it is necessary to guard against it much more carefully. Try to think and design 20 years ahead of the existing standard of excellence required, as all buildings pass through various stages, 1st the highest with best class of tenants at high rates; 2nd the lower class at reduced rents, and so on till the time may come when the building will not pay interest on capital and running costs, and it must come down to make room for a more suitable structure. It is the Architect's job to defer each of these later stages as long as possible; the wise building owner will have provided a sinking fund against such a time but very probably the increase in land values will materially assist him. The life of a first class office building should not be considered to be longer than 75 years. Further depreciation can be materially arrested by proper maintenance, and is deferred during the latter stages of life by replacement of the more perishable parts from time to time.

THE GATE OF LIFE

by William Moore

THERE once lived in the township of Diamond Creek, Victoria, a man who desired to do some good to the place where the work of his hands had brought him prosperity. So he decided to bequeath £100 for Gothic arch for the entrance of the local cemetery. And in his will he ordered that the Latin inscription "*Janua Vitae*" should be inscribed above the arch, as a suggestion that our little life did not end on this side of the tombstone.

In consonance with its inspiring arch, this burial ground is curiously complacent. The inscriptions on most of the memorials, indicate that those who composed them had evidently much less respect for this world than the one hereafter. The legends range from "*Glory in Excelsis*" to the more stoic "*It matters not where the righteous sleep.*" The premature death of a young woman is commemorated in this strain:

"So kind, so young, so gentle, so sincere,
So loved, so early lost, may claim a tear,

Yet wherefore mourn, the life resumed in heaven
Doubtless fulfilled the end for which 'twas given."

"The short years of evils past" and "Life's vain tumults" may be picked out among the other references to our transitory life.

The idea of the Gate of Life must have got a firm hold on a writer, who once visited the township. He composed a long article on the subject, but being a man without method, he carelessly left the last page of the manuscript behind him.

It was picked up by the landlord who had no philosophy beyond the belief that beef was good to eat and beer to sell. It was with a strained look that he read these lines: "When our day is over and we walk down the dark path and knock at the door of the Unknown, what shall we say to the Giver of Life?"

"I tried. I failed. But I did what I could. And now like a worn labourer I seek for rest. When that is done, O let me rise and—fight again."

"EARLY COLONIAL ARCHITECTURE"

From a Lecture given by Frank Walker, F.R.A.H.S., at the meeting of the Institute on November 2nd.

EARLY Australian Architecture stands to the memory of times past, and around it is woven all the old associations that remind one of the notable characters who figured in the early history of this continent. What though the builder's name be forgotten—a name signifies but little—it is his work that endures.

The huge cemetery monument lasts for years, no doubt, but eventually it decays and falls to pieces, or, maybe, is burnt for lime—serving at least a useful purpose at last. Over the cemetery where it stood the future may see tall buildings erected, and the wealthy personage who originally lay beneath the monument, having achieved nothing more than wealth, will long have been forgotten. We have an apt illustration in the transition from a cemetery to a building site in the case of the old George-street burial ground, which to-day is wholly taken up with a huge civic structure and an ecclesiastical building.

Early Australian Architecture shines with stories of builders' endeavours. It wanted no small degree of courage for the early constructors to fling themselves out into the unknown, as they followed the explorer who blazed the track, and left the builder to seal the work by erecting human habitations in his trail. Not for the pioneer builders stand the majestic piles that commemorate the memory of the builders of a city. Perhaps the only record of his strenuous endeavour is a little mound with a rough stone boulder at the head. As one of our own poets has so aptly put it:—

"They made his mound in the rough red ground,
By the dip of a desert dell;
Where all things sweet are killed by the heat,
And scattered o'er flat and fell.
In a burning zone they laid him alone
Past the uttermost western plain;
And the nightfall dim heard his funeral hymn,
In the voice of the wind and rain."

So sings Kendall, in one of his early songs, yet those early pioneers laid a foundation for a nation that to-day holds the greatest possibilities in the history of the world.

My purpose this evening is to introduce you to some of the few remaining specimens of our early builders' work that have survived to the present day. The better to classify these I have divided them into three divisions, viz.: CHURCHES,

PUBLIC BUILDINGS and DOMESTIC ARCHITECTURE. As regards the former, the period dealt with will cover about 90 years. The second division will embrace nearly seventy years, that is from 1793 to 1860, whilst the third division commences about 1810, and the last example brings the section up to the early fifties.

Obviously the various styles of building were copied from English designs, and were permeated with English thoughts and ideas. I am open to correction, but I think I am stating what is a fact when I say that as regards Domestic Architecture we have yet to create what may be termed a purely Australian design. When I say an Australian design, I mean something that is in keeping with our climate, and one not coloured or influenced by English or foreign ideas. I am aware that "The Terrace," that terrible excrescence upon the face of the earth, has departed "unhonored and unsung," and that a wonderful advance has been made in modern and up-to-date places of habitation, but in the older suburbs there are still some examples of houses, which, though well and faithfully put together, show a remarkable lack of knowledge of what constitutes a really comfortable home. For instance, there are scores of houses built twenty or thirty years ago, showing an attractive exterior, but possessing straight through halls, and every door exactly opposite its fellow. These places are never free from draughts, and any privacy expected is a minus quantity. Our early builders—and I am speaking now of seventy or eighty years ago—although they had vague ideas of details which nowadays are a *sine qua non* in the profession, nevertheless produced dwelling places which will last for centuries, if they are allowed to, and which, in consequence of the materials they are built of, are cool in summer and correspondingly warm in winter.

Many of my hearers are familiar with that quaint design consisting of a one-storied structure, with low hung roof, front collanade, and the inevitable two-rooms at each end of the collanade, or verandah, to give it its Australian term. They are to be met with in all parts of this State, and in some localities in Tasmania, and right well have they served their part. Who furnished the original design is a question that has never been answered, but I like to think that it is a design that has been evolved by an Australian, for Australian purposes, and as most of the existing spe-

cimens are, or were, in active use as public houses, possibly the unknown gentleman had a considerable interest in the business that kept them going.

In the vicinity of some of our oldest towns many fine specimens of the early-day homestead may still be seen. They were erected when labour was cheap and plentiful, but whoever designed them, he knew his business thoroughly, and their solidity and strength will help to keep them before us for many a long year to come.

As regards our Churches, nearly all that I have to show you owe their existence to English impressions and ideas. It is only natural when you come to look at it, for have we not sprung from British stock, and do we not inherit all its traditions and history. The Norman, the Gothic, and the Perpendicular all have their representative buildings, and as regards the first named, many of our older Churches are undoubtedly replicas of old Norman Churches in the Provinces of England.

I am reminded of a particularly fine specimen in one of our suburbs, viz.: St. Anne's, Ryde, which this year is celebrating its Centenary. Those of you who have travelled in the Old Country (I have not had that privilege, yet)—will be reminded of similar types of buildings, when you see them on the screen, which you may have come across in your travels, surrounded by their quiet "God's Acre," where, as Gray, the poet expresses it in his inimitable elegy—"The rude forefathers of the hamlet sleep."

Nearly all of what we call the "Macquarie Churches" have a strong family likeness, and the five that are still existing are a tribute to that doughty builder and Administrator, even if they do not send us into raptures over their architectural beauty.

The years 1817-1819 were prolific of great building projects in New South Wales and Tasmania, and during this period many buildings were initiated, commenced and completed, a fair percentage of which are still in existence. All have the "Macquarie stamp" upon them, and though more than a century has passed since the great man gave them his approval, they are still in excellent preservation, landmarks of a period of our history which it is not wise to forget.

The public buildings that date from the earliest period of our history, and have survived to the present day, show more of the utilitarian aspect and character, than the ornamental. The oldest public building that we have with us, and which for over 130 years has been in constant use, is

that huge construction on the western side of Sydney Cove, known as the Commissariat Stores. These were erected in 1793, and formerly stood close to the water's edge. Overshadowed by the neighbouring "sky-scrapers" towering up into the heavens, dwarfed by the giant ocean going steamers alongside, and circling around them the roar and bustle of a Twentieth Century city, the old buildings still show a brave front to the world, and offer a strange contrast to our modern ideas of building construction.

Other existing public buildings such as the Mint (formerly a portion of the old General Hospital, erected in 1816); Hyde Park Barracks, dating from 1819; the recently demolished Girls' High School, erected about the same date; that peculiarly ugly and unprepossessing pile of bricks and mortar, the Supreme Court; are each in their way characteristic of the times when they came into being. The plans and designs of each are obsolete, but in their day were highly thought of and no doubt gave much satisfaction to the great Autocrat, Macquarie, who has so aptly been named the "Building Governor."

Parramatta and Windsor still remain a fair number of the old style of buildings reminiscent of the Macquarie era, and it is only fair to pay a just tribute to those early builders for the excellence and enduring qualities of their work, when we remember that nearly all are still in active use. In nearly every case where bricks have been used in construction work the splendid wearing qualities of this material are self evident, and I sometimes wonder if a hundred years from now the material we are using to-day will present an equally solid appearance.

At Norfolk Island, and Port Arthur in Tasmania, are to be found many interesting specimens of the builder's art, which mostly came into existence in the forties, and as regards the first named place, several of those erected in the convict days are still in excellent preservation. These are all of free stone, quarried, cut and dressed on the Island, and nothing short of an intensive bombardment would reduce them to ruins. The prison itself has almost disappeared, consequent upon the Islanders being allowed to make use of the material for the building of their homes. The Commissariat Stores and Military Barracks are intact, and are excellent, if gruesome specimens of that particular style of building which the degrading "Convict System" required for its administrative and punitive powers.

With this brief introduction to my subject, I may now produce the slides which will afford you a better idea of my subject, than a written descrip-

tion. Before I do so I would like to give you a brief sketch of Francis Howard Greenway, who as one writer has said, "... succeeded, in the face of overwhelming difficulties, and ceaseless opposition ... in creating architecture which has become singularly precious because there is so little of it, and because it is the foundation of art in Australia, well and truly laid. . . ." Francis Howard Greenway practised as an Architect in Bristol until the year 1812, when he was tried and sentenced to fourteen years for concealing his effects at his bankruptcy. He was transported to Sydney in 1814, and two years later Macquarie appointed him Civil Architect to the Government of New South Wales, from which he was dismissed soon after Macquarie's recall. Greenway was an artist in the art of Architecture, and was also a painter of sorts. Although he was twice forbidden expression in his art, he designed enough buildings during the few years when working with Macquarie, to show that he was one of the most accomplished architects who have dwelt in Australia. His emolument, during the period he occupied his official position, was not one that would make the mouths water of the members of the profession to-day, for it consisted of but three shillings per day. The unfortunate architect came in for some bitter criticism from John Thomas Bigge, the Commissioner sent out to report upon the affairs of New South Wales. His designs and plans were interfered with, and the expression of his art so persistently denied him that he stopped furnishing plans and seldom visited jobs. Bigge charges Greenway with "making too great a sacrifice of time and labour to the purposes of ornament and effect." "This seems a rather strange charge when one considers the Hyde Park Barracks, St. James' Church at Sydney, and St. Matthew's Church at Windsor, which do not by any means bear out Bigge's charges of indulgence in their ornamentation, for three plainer buildings could not well be imagined.

He set up in business at 84 George Street, and a portion of his professional advertisement should interest my hearers. After referring to his previous experience in the old country, the advertisement goes on to say further:—"Plans, Elevations and Sections of Buildings, from the simple Cottage to the most extensive Mansion; making out a Bill of Quantities for the workmen to estimate from, and to ascertain the Expence (sic) of the Building for the Proprietor; plans of the most approved Staircases; of Shop Fronts; of Chimney Pieces; Awnings and Verandahs; Ornaments of every description and models of Buildings, he is anxious to provide; and his terms are Five-per-cent."

Although Macquarie and Greenway were the best of friends and worked in harmony together, the latter's life as Civil Architect was not a happy one, for although his patron was considerate he could not give his architect much scope for his artistry, nor protect him from the interference and antagonism of officials, who never lost an opportunity to spoil his works.

It may not be a matter of general knowledge that the first mention of a bridge across the harbour happened in 1814, and the suggestion came from Mr. Greenway. He proposed to Governor Macquarie that a bridge should be built from Dawes' Point to the North Shore, pointing what an aid it would be to settlement on that side of the harbour. Fourteen years later he writes in the "Australian," making reference to the many necessary public works he had advocated, and amongst them he includes the North Shore Bridge, that he had proposed in 1814, and says: "... In the event of the bridge being thrown across from Dawes' Battery to the North Shore, a town would be built on that shore . . ." and also points out the many advantages that would accrue to that locality. More than a century later we are still waiting for that bridge, but now there is a reasonable hope that in a few short years our dreams will be realised.

Greenway's career came to an untimely end in 1823, when Commissioner Bigge recommended that an officer of the corps of engineers should be appointed to direct and superintend all works, and then he added the fatal words: "After the appointment of such an officer shall have taken place, it does not appear to me that it will be necessary to continue that of the Colonial Architect." And so passed a singularly gifted man, who, in spite of his lapse from virtue, which he was never allowed to forget, was an ornament to the profession he loved.

One of the main objects which brought the Royal Australian Historical Society into existence, over twenty years ago, was that of concentrating its efforts on the preservation of many of these interesting relics of the past, and by lectures, and the spread of information concerning them, endeavour to create an interest which would go far to help us in our efforts. I think we have succeeded in some small measure in awakening a desire in all good Australians to know more of their country and its interesting past even if the eternal money question has prevented us from taking practical steps to preserve some of the old and historic buildings from demolition, when their time came to give place to something more in keeping with the spirit and customs of the age we live in.

INSTITUTE OF ARCHITECTS

ORDINARY GENERAL MEETING

HELD 7th DECEMBER, 1926

The President, Prof. A. S. Hook, occupied the chair. Apologies were received from Sir Charles Rosenthal, Messrs. A. W. Anderson, O. W. Weston, W. A. Nelson, R. V. Minnett, A. W. Gerard, H. E. Budden, R. K. Harris, and Prof. Wilkinson.

Minutes of General Meeting, 2nd November, were confirmed and signed.

Col. J. H. Hurst read a progress report of the Small House Plan Service Bureau, as follows:—

The Directorate was established in accordance with directions of the Council of the Institute of Architects. Two members appointed by the Institute, two by the Board of Architects, and two elected by these four, not necessarily architects.

The Institute appointed Messrs. J. H. Hurst and J. A. Kerr. The Board appointed Messrs. O. W. Weston and B. Hadley, and Mr. Morris, of Priestly & Morris, Accountants; and Mr. Jas. McIntyre, of Williamson and McIntyre, were elected.

Mr. J. A. Kerr, finding it impossible to give the time required to the work resigned and Mr. N. C. Mackey was appointed by the Institute in his stead.

The preparation of the Memorandum and Articles of Association was the first undertaking. Weekly meetings have been held until this was completed, and the Memorandum and Articles of Association after approval by the Council of this Institute have been forwarded to the Hon. the Attorney-General with a request for a license to register. In the absence of any request for amendment it is presumed that as soon as the Governor or Council has given sanction the license will be issued and the Bureau be registered under the Companies Act of N.S.W.

Mr. Morris has proved himself a very enthusiastic and most useful member of the Directorate, his expert knowledge of the requirements of the Companies Act has been of inestimable value in drawing up the Memorandum and Articles of Association. It is due to his help that no expense has been incurred in this connection.

The conditions for the competition have also been drawn up and approved by the Council of this Institute, and the Directorate only awaits completion of registration before launching the competition.

A draft copy of these conditions may be seen at the Institute rooms. It is hoped that Members will anticipate the launching of the Competition and get their designs well in hand.

Comparatively no expense has been entailed up to the present, and very little will be incurred until the Bureau is in a position to place the plans on the market. In this connection several Members of the Institute have generously consented to forego any payment for their designs until the Bureau is in a position to pay for them. It will materially assist the Bureau if others competing will follow their example.

A circular letter will be forwarded to all Municipal and Shire Councils, also to all Banks and other Institutions who advance money to build small houses, inviting their attention to the objects of the Bureau and their co-operation in their achievement.

It is hoped that the Bureau will be in a position to sell designs before the beginning of February, and from the amount of interest that is being taken and the inquiries that have been received success is indicated. DRAFT OF LETTER PROPOSED TO BE SENT TO ALL MUNICIPAL AND SHIRE COUNCILS. The Institute of Architects of New South Wales invites the attention and interest of all Municipal and Shire Councils to the Small House Plan Service Bureau, which has been recently established under its aegis, and ventures to hope that it will receive your wholehearted support and recommendation.

The Bureau has been incorporated under the Companies Act of N.S.W.; the objects stated in the registered Memorandum of Association are:—

1. To improve the standard of design and economic planning and construction of the small house.
2. To assist those who are desirous of erecting or having erected a small house by supplying at a moderate cost, well considered plans, specifications, etc.
3. To devote surplus funds inter-alia to the advancement of and education in Architecture.

It is generally admitted that there is room for much improvement in the architecture of our smaller residential buildings.

Many of these buildings are designed by men who have had no training in the principles of design, with the result that our suburbs are full of grotesque and ugly buildings.

The Small House Plan Service Bureau proposes to provide plans for small houses which shall be architecturally correct, economically built, and correctly planned, in addition to ensuring to the owner much more protection than at present obtains under the loose system of designing and building by unqualified men.

The officers of Municipalities and Shires will appreciate the saving of time by having carefully prepared plans submitted for their approval instead of many of the crudely drawn plans which barely comply with the Local Government Ordinances, and give very little information as to construction.

The Bureau will be of benefit to the man of limited means who feels that he cannot afford the recognised fee charged by Architects.

It is proposed to provide at a cost of not more than £5 5s. properly prepared plans, specifications and conditions for contract.

Three copies of the plans will be provided, one for the Council or Shire, one for the Builder, and one for himself.

The Bureau is not being established as a money making concern and should it receive the support which the Institute of Architects believes it deserves the above mentioned fee may be reduced.

The Council of the Institute of Architects is desirous of having the co-operation and support of the whole of the Municipalities and Shires in this project and will be glad to have the assurance that the scheme has your approval.

There was some discussion as to the work outlined by the report, and Mrs. Taylor gave notice of the following motion to be discussed at the next General Meeting:—

(a) This Institute sanctions the issue of plans by the Small House Plan Service Bureau provided they are sold to architects only, who will receive 50 per cent. of the commission charged for their trouble in handling and distributing the plans, in much the same way as the transactions for wholesalers and retailers are conducted.

(b) The architects in turn will sell to the builders (as distinct from the general public) for the small sum stipulated by the Small House Plan Service Bureau; but with no additional fee unless alterations be made to the plans when normal fees are to be charged for the alterations only.

Consideration was given to the Scale of Professional Charges as amended and printed in the November number of "Architecture." There was some discussion, and the following alterations were minuted:—Proposed by Mr. F. H. E. Walker, seconded by Mr. J. A. Kerr that on page 5, clause 2 be amended to read: "For services in connection with alterations, additions or repairs, other than in the extension of current work the minimum charge shall be 25 per cent. above the rates as set forth for new work in Clause 1." Carried.

Mr. A. E. Scott pointed to Page 5, Clause C, and said that he would very much like to see a reversion to the sliding scale formerly used, and it was resolved on the motion of Mr. Peddle that this clause be referred back to Council for further consideration on the lines of Mr. Scott's and Mrs. Taylor's suggestions, with authority to act. Mr. Scott then moved that Clause F on page 4 read: "any Architect who has to employ a consultant to do any portion of his work shall pay his fees himself." Seconded by Mrs. Taylor. Mr. Peddle moved an amendment to this motion: "That this matter be referred back to Council for reconsideration, with authority to act"; seconded by Col. Hurst and supported by Mr. Copeland. After some discussion the amendment was carried by sixteen to twelve. It was also resolved that Clause 9 on page 8 be referred back to Council for reconsideration, with power to act.

The President explained that the matter of the proposed Royal Australian Institute of Architects is to be dealt with at a special Council meeting and that owing to some possibility of the necessity of alteration and adjustment the matter was not yet ready for discussion at this meeting but would probably be presented at the next general meeting.

The President read the following report on the subject of quantities:—

Up to the time about 18 or 20 years ago, it will be remembered, when tenders were called for any building work, whether the job was large or small, tenderers took out their own quantities.

It was claimed by builders at that time, and recognised by architects, that for a dozen or twenty contractors to take out quantities for jobs of the value of, say, 50, 60 or 80 thousand pounds while only one *could* get the job, and perhaps not one did get it, was uneconomic and unfair.

A conference was held between representatives of the Institute and representatives of the Master Builders' Association, and the quantity system was considered. It was recognised by the delegates that while in large jobs the hardship suffered by builders in taking off

quantities was serious, in small jobs it was negligible, and it was agreed that for work of the magnitude of £2000 or less, at the values then ruling, no quantities need be furnished.

It was also recognised by the delegates, as a matter of fact, that, as the Building Owner had to pay for them, he had the right to say, if he chose, that quantities should not be supplied.

The Institute delegates reported to the Council the result of the conference and advise the introduction of the quantity system as agreed to by the delegates and under the condition named.

At the General Meeting of the Members the Council recommended the introduction of the quantity system as submitted by the delegates, under the condition named, and the members agreed.

The system has proved satisfactory, and now for almost for every job quantities are issued with plans and specifications when tenders are called, except for the small work specifically exempted.

Notwithstanding the success of the system, and the advantages that have accrued to builders in consequence of its almost universal adoption, the Master Builders' Association has for some considerable time sent letters charging various members of the Institute with breaches of the agreement. When these complaints have been made every courtesy has been shown to the Association, and each complaint has been fully investigated; the investigations have shown, however, almost without exception, that no departure, or no serious departure, from the agreement has been made.

During the last few months the Association has gone further than send protests to the Council.

A short time ago Mr. Buchanan called for tenders for a job for which his client refused to have quantities; the Association threatened, and attempted to boycott Mr. Buchanan. This was not done through the Council but was a direct attack upon one of our members.

Later Mr. Claud Hamilton called for tenders for a simple factory job and under specific instructions from his client (who was himself a retired builder) quantities were not issued. Complaint was made by the Association to your Council and after our reply a threat was made to take action against our Member, which action was, it appears, to boycott him unless he gave a written pledge to act as the Association dictated. The Association again made a direct attack upon one of our Members.

Later again Mr. Richardson called for tenders for a job which, as a matter of fact, was worth £2000 or less, as proved by the tenders received. The Association circulated its members directing them not to tender upon the ground that in the opinion of some of the builders the job was worth more than £2000, and as a result nearly one half those who had promised to give prices failed to do so.

We wrote the Association pointing out first, that no exception could be taken to Mr. Claud Hamilton's action as it was in accordance with the condition under which the quantity system was agreed to, and second, that in its attack upon Mr. Richardson it had broken both the spirit and letter of the agreement.

In its reply the Association repudiated the condition with reference to a client's right in the matter of quantities; altogether it has recognised this condition for 18 or 19 years and repeated the mis-statement that Mr. Richardson had broken the agreement and not the Association.

This reply left your Council no choice and on the 25th October, 1926, a letter was sent to the Master Builders' Association cancelling the agreement that regard to the quantity system as from that date.

The President advised the Members that the Report just received from the Board of Architects covering period up to the end of October, will be published in "Architecture."

The ballot for new members resulted in the rejection of Mr. H. Whitehouse and the acceptance of Mr. A. Muir.

The President advised the Members that their Council has decided to take over, edit and publish the Journal of the Institute as from the 1st January next. He felt sure that this would meet with the support and co-operation of the individual members, and suggested that at any time members had interesting matter, or felt inclined to write on current topics that they

thought would be of interest to the Institute Members, they sent same into the Editor. Mr. Louat suggested that it would be of great value if alterations in local ordinances could be published in "Architecture" for the benefit of Members and the President welcomed the suggestion and said it would be carried out. Mr. Dobson suggested the establishment of a correspondence column, and was advised that such a column was already being arranged for, and that a letter had already been received for publication.

The President advised that he had in hand a very interesting article by Mr. Howard Joseland on "Some English Water Color Painters." As it was not possible for Mr. Joseland to be present to read it himself he had very kindly handed it over to be read if time allowed. As, however, the business of the evening had taken up so much time and it was now rather late he thought it would be best to ask Mr. Joseland to come and read it to the meeting at a later meeting. Members then adjourned for refreshments.

BOARD OF ARCHITECTS FOR NEW SOUTH WALES

Report for the Institute of Architects

MEETINGS.—Since the last report of the Board was published in this Journal and up to the end of October, 12 Board Meetings, and one Committee have been held. **LEAVE OF ABSENCE TO MR. B. J. WATERHOUSE.**—Before leaving for England on the 29th May last, Mr. B. J. Waterhouse requested the Board to grant him leave of absence for a year. The Board has accordingly granted him leave of absence for this period. Mr. Waterhouse was tendered a Dinner by the Members of the Board and the Council of the Institute at Adams Hotel on Thursday, 27th May, before his departure abroad.

APPOINTMENT OF MR. NANGLE.—On the recommendation of the Board and the Minister for Education, His Excellency the Governor in Council approved of the appointment of Mr. James Nangle, Superintendent of Technical Education, as Deputy Member for Mr. B. J. Waterhouse during his absence abroad.

APPOINTMENT OF MR. ANDERSON.—Consequent upon the resignation of Mr. B. J. Waterhouse as Vice-President of the Institute of Architects of New South Wales, Mr. A. W. Anderson, who had been elected Vice-President in his place became eligible for appointment as a Member of the Board. He has accordingly been appointed a Member by His Excellency the Governor in Council.

RETURN OF PROFESSOR WILKINSON.—The Dean of the Faculty of Architecture, University of Sydney, was welcomed in June at the first meeting of the Board after his return from Great Britain and the continent of Europe.

HONOR TO THE PRESIDENT.—The President of the Board Mr. G. H. Godsell has been honored by being elected a Fellow of the Royal Institute of British Architects. This is regarded by the Board as an honor to the profession.

REGISTRATIONS.—The following registrations have been approved:—W. P. Page, C. H. Ballantyne, Bur-

cham Clamp (jun.), S. Lipson, W. D. Baxter, E. B. Thompson, J. A. Gardiner, R. M. McGrath, H. S. Standen.

Five applications for registration have been declined. **WITHDRAWAL FROM REGISTER.**—Mr. Varney Parkes applied to have his name withdrawn from the Register as the infirmities of advancing age compelled him to give up practice of his profession. The Board agreed to his request and also permitted him to retain his registration certificate after it had been endorsed "Cancelled by request on retirement."

The request of Mr. C. G. Plumb for permission to withdraw from the Register has been acceded to, and his certificate of registration has been returned to the Board.

DECEASED ARCHITECTS.—The sympathy of the Members of the Board has been conveyed to the relatives of the following deceased architects:—E. J. Bowen, A. L. McCredie, B. C. Martyn, G. H. Mathison, R. J. Marks.

ILLEGAL USE OF THE WORD "ARCHITECT."—Suitable action has been taken by the Board regarding the illegal use of the word "Architect" in two cases. In one instance the Board felt impelled to prosecute, and the defendant was fined £1 plus 8/- costs in default 14 days' hard labour.

AUSTRALIAN MEDALLION.—The conditions governing the award of the Australian Medallion have been reviewed and amended by the Board. The following are now the conditions of award:—

1. Two Medallions, each accompanied by a Travelling Scholarship of the value of £400, may be awarded annually by the Board of Architects of New South Wales.
2. One such Scholarship shall be open to Graduates in Architecture of the University of Sydney of not more than three years' standing and who shall be British subjects.

3. One such Scholarship shall be open to holders of the Diploma in Architecture of the Sydney Technical College of not more than three years' standing as such and who shall be British subjects.
4. The Faculty of Architecture of the University of Sydney, and the Board of Studies of the Department of Architecture of the Sydney Technical College may submit one or more nominations to the Board. Such nominations must be accompanied by details of the accomplishments of the candidates. Before an award is made nominated candidates may be required to appear before the Board. The award of the Medallion will be made by the Board to the candidate who gives promise of profiting most by study abroad.
5. Each applicant shall be required to submit to the Board his proposed course of study and itinerary and, if successful, shall—
 - (a) Enter into an agreement to return to Sydney within three years, or as determined by the Board.
 - (b) Remain in New South Wales for at least twelve months after his return to this State, and be prepared to be guided by the Board as to his career during that period.
 - (c) Deliver a course of lectures upon his return where and as may be required by the Board.
 - (d) Present to the Board of Architects such of his studies prepared abroad as may be selected.
 - (e) Present to the Board a report upon a subject selected by the Board and prepared during his tour abroad.
 - (f) Report to the Board during his tour at intervals of six months.
6. The amount of the Scholarship shall be advanced from time to time in such manner as the Board may determine.

TRAVELLING SCHOLARS.—One of the Board's travelling scholars and winner of the Australian Medallion for 1926, Mr. Albert Edward Barnard, Diplomat of the Sydney Technical College, left Sydney by the "S.S. Largs Bay" on the 20th October last. He has been furnished with letters of introduction from the Minister for Education, the President and the Registrar, and a State Credential from the Premier. In accordance with the terms of the agreement, Mr. Barnard has been asked to make a study of, and report on "The Adaptation of Mediterranean work to Australian conditions."

The other scholar for 1926, Mr. Frederick Keith Manderson, Bachelor of Architecture, University of Sydney, does not propose to go abroad for another year. TRAVELLING SCHOLARS ABROAD.—Copies of reports from travelling scholars regarding their work and studies have been made available to the School of Architecture of the University, and the Department of Architecture of the Sydney Technical College for the information and encouragement of the students.

Action has been taken to give publicity to the Board's gratitude to Architects in England for the help they have given to the scholars and students from this State by employing them and affording them facilities for continuing their studies. Those who have gone abroad have found a friend and wise counsellor in Major Hubert C. Corlette, O.B.E., F.S.A., F.R.I.B.A. The Board is greatly indebted to him for the deep interest he has taken in the welfare of these scholars.

R.I.B.A.—ACCEPTANCE OF THE BOARD'S PRESCRIBED EXAMINATION AS AN EQUIVALENT QUALIFICATION FOR ASSOCIATESHIP OF THE R.I.B.A.

On the 12th March, 1925, the Registrar addressed the Secretary of the Royal Institute of British Architects on the above matter. Professor Wilkinson discussed it with the Board of Architectural Education while in London and he reports that the Secretary of the Royal Institute of British Architects informed him that his Institute had come to view its overseas examinations as somewhat out of date, and was desirous of decentralising its operations and of accepting recognised examinations of bodies such as the Board in the Dominions. He informed Professor Wilkinson that he was communicating with the Registration Boards and Institutes in the Dominions on the matter with a view to coming to some arrangement that would be uniform throughout the Empire.

PUBLIC SERVICE EMPLOYMENT SELECTION COMMITTEES.—In reply to the Registrar's representations, the Secretary of the Public Service Board has intimated that the Board will be glad to avail themselves of the services of the President, Mr. G. H. Godsell, in connection with appointments to the Higher Grades of the Public Service.

E. WILLIAMS,

25/11/26.

SOME OLD ENGLISH WATER COLOUR PAINTERS

by Mr. Howard Joseland

THE names I bring before you are among the greatest of these Masters, and it is the more to their renown when we consider that there were no art schools in those times, as we know them to-day, and that a Water Color painter could not make a bare living unless he supplemented his income by teaching, illustrating, or also painted in oils. As a matter of fact, Water Color painting was then used to a great extent as a means of making studies for oil painting and as producing views for the engraver to work on. I propose to deal with the most prominent figures in the group. An astonishing amount of work was accomplished by Girton, who was born in London in 1775 and died at the age of twenty-seven. The comrade and friend of Turner, he was the son of a ropemaker and a pupil of Edward Dayes, a versatile artist who painted architectural subjects, figures and miniatures; engraved in mezzotint and wrote several works on art.

Girton was scarcely less impressive than Cozens, but was more various. Payne in 1823 said "This artist prepared his drawings in the same principle hitherto confined to oils, namely, with local color and shadowing with individual tints of its own shadow." He saw the actual English world of wood and stream, bridge and tower and town which he portrayed with cheerful fidelity. He is said to have completed his sketches on the spot which was contrary to the usual custom. Previous to Girton and Turner, drawings were shadowed entirely throughout; houses, trees, mountains, foregrounds alike, with black and grey. They were then stained or tinted, enriched and finished. Girton made in 1802 noble studies for his panorama of London, which was exhibited in August of that year.

He was one of those rare men to whom the practical details of his work presented apparently no difficulties, being capable of attacking and overcoming the most exacting problems of his art. He was fond of a peculiar quality of coarse cartridge paper which was folded up the middle into quires. The crease formed caused a dark tint in the sky or landscape eventually prized by connoisseurs as a proof of their authenticity. An account of his method is given somewhat as follows:—"Washed in azure spaces with indigo and lake and shadows with light red and indigo. The warm tone of the paper served as lights opposed

to cool color of azure and shadow of clouds. He then proceeded with tints of buildings, trees, water, etc., other colors used were Roman ocre, madder brown, Indian red, Vandyke brown and burnt sienna, yellow lake, gamboge and brown pink. His pallate was more varied than his contemporaries

JOHN SELL COTMAN, who was born in 1782, died at the age of 60. Described as *one of three giants* in their work, the other two being Cox and De Wint. He was contemporary with Turner, Girton and Varley, and was the founder of the Norwich School. His work was always broad and certain, but his late work was wanting in harmony. He was an etcher of high attainment, a poet by nature, sedate, elegant though retiring. He loved architecture and tranquil landscape. Took to illustrative work on architecture and outlined with the reed pen at times.

The distinctive peculiarity of his "Greta Bridge" is its reliance on clear stain or rich blotting of color, limped washes preserved in all freshness. We are unfortunate not to be able to see this original painting. Mr. Binyon draws attention to resemblance to conventional methods and aims of Japan and China of thousands of years previous in some of his work. For instance, trunks and branches of tree put in flat—not rounded.

At one period of his life, about 1830, his coloring got violent and strained and he unduly used blue and orange. In some drawings blue has faded to monochrome. He was warned by a critic that his violent coloring would not succeed, but probably it was the result of joy in the new found use of colored light rather than a desire to pander to bad taste or cause a sensation. Low toned pictures had become unpopular.

Cotman's sensitive and refined nature led at times to fits of depression. He lacked self confidence and never played for high stakes, but on the other hand was one of the finest spirits who ever worked in landscape art.

It may here be said that many of the old water colors have suffered seriously through the fading of colors, especially blues, leaving the browns to predominate. One can imagine that reds must have unduly asserted themselves in Girton's work. I would also allude to the use of the reed pen or

outlining with brush. I notice a tendency to this in some modern work. Rich's and others, though possibly it may have been done in sketches chiefly to facilitate quick notes of objects. I was always taught outlining was wrong and I have seen no reason to alter that opinion, excepting that it may be permitted in decorative work.

I speak of the work of JOSEPH MALLORD WILLIAM TURNER with something approaching to awe and worship, hardly with sympathy, because he seems to stand in a class that ordinary mortals cannot hope to enter. He was born at Covent Garden in 1773, the son of a humble and poor hairdresser (the remunerative trade of "bob and shingle" had not come in then or we might not have had a Turner). His mother was of still humbler origin. He worked with Girtton and other contemporaries for Architects in early days, putting in back grounds, etc., for a very short time made topographical drawings and taught drawing, etc. These aids to living he, however, quickly abandoned and went to nature direct industriously making a vast number of studies and records for future use, but he repudiated mere imitation of nature after his genius had matured. He copied other artists' work in early days and was influenced by Claude and Wilson, who painted chiefly in oils, but his genius raised him above these painters. From 1800 to 1820 he worked chiefly in oils, and his work came into great request. Unlike his contemporaries, he was able to command good prices and died a wealthy man, having £140,000 to his credit.

One cannot help feeling astonishment or amusement that he could label some of his paintings at all by names of places. I came across his painting of my native city of Worcester the other day. It almost made me gasp. Its modest Cathedral had grown into an impressive celestial triumph. The river, which I regret when I saw it last, shunned an account of its repellant condition, was bright with barges, boats and picturesque people, and over the whole a venetian atmosphere prevailed. It certainly is well described as "*Theatrical*," and it might be added—a *magnificent lie*, but it is like so much of Turner's work, transcendently wonderful and poetical.

In making his sketches Turner would seize an effect by a wash of color with astonishing sharpness, but his finished water colors were produced by delicate and repeated washes, and rubbing away surface of the paper, he was full of expedient to attain quality and texture. He damped his paper, picking out portions of tints by blotting out to gain little spots of high light and even cut out layers of paper for that purpose, and

without the use of body color produced the effect of their use. He appears seldom to have painted out of doors. By limiting the range between dark and light and dispensing with shadows, he aimed at obtaining intense illumination. He was very expert at stippling to attain evenness of tint, and he employed glazes of brighter or cooler color. His genius was incapable of being fettered, and he worked on his imagination either to recall some unusual effect or to register some vision at the back of his brain which his habits of solitude favored.

The career of David Cox (1783-1854) was remarkable inasmuch as his finest work was not produced till between the age of 57 and 71. He was the son of a blacksmith, and was born near Birmingham. In the 18th century the idea prevailed (as it still does to a great extent) that the practice of art involved the observation of certain conventions, too sacred to be questioned. Cox when he escaped from the drudgery of his early means of livelihood broke away from these conventions and sought inspiration directly from nature.

Round his home in Dulwich he painted and sought to acquire mastery over subtleties of atmospheric effect. He was elected member of the Water Color Society at thirty and was appointed drawing master at Farnham Military College about that time. Next he obtained the position of master at a girls' school in Hereford at a salary of £100 per annum and had the right to teach other pupils. Later he sketched in Holland and he illustrated the Midlands of England. Then we find him working steadily with De Wint, Copley, Fielding and others in London, where he obtained better prices for his pictures and lessons. To still further improve his style, he took lessons from Mueller, a clever young artist whose career was brilliant but cut off by an early death. At the age of 60, having well established his reputation, he turned his back on city life and took a quiet retreat at Harbourne, where he spent his last eleven years free from anxiety and with his beloved nature, painting chiefly in Wales. At last he had achieved fame and sold one picture at £100, and others at from £20 to £70, some of which have since fetched two and three thousand pounds. He left £12,000. By nature he was modest and simple minded, a realist and a poet, known as "Old Farmer Cox."

He applied his colour with a full brush and disregarding all minute details and finish, aimed at general effect. At times he used a coarse straw board, and on this employed body color and scratched away the surface for high lights.

It has been said of him, "No painter has given us more truly the moist brilliancy of early summer time, the sparkle and shimmer of foliage in weed-age in the fitful breeze that rolls away the clouds from the watery sun, when shower and sunshine chase each other over the land," a description which might equally apply to some of Constable's work.

Towards the close of his life he painted much in oils.

PETER DE WINT was born in Staffordshire in 1784. The De Wints were a prosperous family of Dutch Merchants, who adventured in many parts of the globe. Peter's father was Dutch, his mother Scotch.

In his boyhood Peter would wander in the woods alone, interested in the trees and plants, birds and beasts. He early resolved to be an artist, but his father started him on a course of medical training, but with a tenacious disposition Peter stuck to his resolution and broke opposition.

De Wint first exhibited in the Academy in 1807. Two years later a critic commented on his work as showing "correct observation of nature, fine selection of form and truth and simplicity of color." His works have all the indications of superior thinking, all the genius of greatness (showing *greater discernment* than many critics of later years, when his masterly outdoor sketches were often described as "daubs of dirty color"). He was elected with Copley Fielding as member of the Water Color Society. One of his most famous paintings, "The Cricket Field," he could not sell, so he strained another piece of paper over it. It was discovered 34 years after. Nearly all his subjects were English, he having made only one sketching trip to the Continent. Among many of the aristocracy, at whose houses he often stayed, he was a favourite. He worked a good deal for publishers.

Varley told his pupils that "flat washes of color, in good lay in, were like silences, for as every whisper could be heard in silence so every lighter or darker touch on a simple and masterly lay out, told at once, and was seen to be good or bad." That truth always guided De Wint. His full chorded schemes of rich colour are a joy to all artists. They are among the most wholesome and invigorating delights of the English school of landscape painting. He used chiefly *Vermilion, Indian red, Prussian blue, Brown madder, pink madder, sepia gamboge, yellow ochre, burnt sienna, purple lake, brown pink and indigo*. Occasionally he added orange ochre, Vandyke brown, olive green, cobalt and emerald green. All were in hard cakes, as obtained at that time, but kept soft with water.

He is said to have employed two large brushes, one new and fine pointed, and the other old and worn, every part being vigorous and laid in with a full flowing brush and completed whilst wet with a mosaic of added tints, all so harmonious that they charm like precious stones arranged in a skilful manner, which description appears to be too sweeping, because if one studies his works one sees that, like other artistes, he varied his method and handling to suit his subject, and to dogmatise as to his method extending over so long a period is sure to lead into error, besides which brushes do not always remain in the same condition. It has been said also that he worked with wet paper, but I know enough of water color manipulation to feel that this could not have been carried to excess or even adopted in many of his paintings. He seldom used body colour, but scratched out his high lights frequently; he never under painted with grey or glazed his water colours.

CONSTABLE, who was born in Suffolk in 1776, was the son of a miller. Leslie says he filled a place unoccupied by Turner, Cozens, Girtton and others, and was the most genuine painter of English scenery (excluding its mountains and lakes) in water colour. He aimed at correct representations of nature rather than fashionable conventions of the day, was ridiculed by critics and misunderstood by his fellow workers, and not till a few years before his death did he exercise any marked effect on the methods of our school. Yet he set an example almost as valuable as that of Turner and though he made his reputation by his oil painting and chiefly first by his "Hay Wain," his must have been a powerful influence in the direction of leading artists and the public to still further appreciate the English scenery on which the English School of Water Colour was chiefly founded. Ruskin said of Turner and Constable:—"Constable perceives in a landscape that the grass is wet, the meadow flat, and the boughs shady; Turner perceives at a glance the whole sum of visible truth open to human intelligence." He refused to believe that nature was the colour of an old Cremona fiddle. Instead he put a fiddle on a green lawn, laughed, and went on his way, to show that grass may be green and sky blue, and he tried to represent the vibrations of light with spots and splashes of colour to counterfeit the sun's glitter.

Constable was a large hearted, generous, simple natured man, and, though a naturalist, said of Turner, "Turner has some golden visions, glorious and beautiful. They are only visions, but still they are art, and one could live and die with such pictures."

Constable's influence, though late in life, was dramatic and began at the age of 48 with a picture, unappreciated in England, but which was bought after being exhibited in the Academy in 1821, three years later, by an unknown purchaser, with two other beautiful works, for £250, and was exhibited in the French Salon, where it is said to have startled the French Artists and sent landscape painters to new pastures. Constable had performed the old legerdmain of a *return to nature* (says Lewis Hind). Constable expressed himself as if there had never been a painter before him.

TOM COLLIER (1841-91) was born in Manchester. I skip a number of more or less illustrious names and come to Collier, who may be said to have linked the old school with the new. Wild English nature of moor and marsh, down and wood he studied, following Cox in his best period with an economy of means, with slowness often instead of haste, with a subtlety of truth

and refinement to which Cox could not attain. He exhibited at the Water Color Society and the Royal Academy, was given the Legion of Honour decoration in France in 1878. He followed faithfully the traditions of the earlier school of water color landscape artists, singling out the best of them to follow, De Wint and Cox. His vigorous method of handling his large views gave his work a very personal character and air of distinction. He painted broadly and omitted trivial details. His *adjustment* of the various *features of his pictures*, so as to fit them into his scheme, was masterly and his refinement of atmospheric effect especially intelligent, but his free expression did not prevent his respect for tradition.

In conclusion I feel something akin to despair. The more I have read in books of reference and inspected many reproductions and a few originals, the more I feel we are at a loss here to properly pursue this subject, and the more feeble have been my efforts to do you any real service.

SYDNEY TECHNICAL COLLEGE ARCHITECTURAL CLUB

THE most important thing at present before us is the announcement, by the committee, of two sketch competitions—one for pencil sketching and the other for water colour sketching—each carrying first and second prizes of one guinea and a half guinea respectively. The subjects in each case must be of architectural interest and must be out of door. The minimum size is set down as seven inches by five inches. The closing date is in March, 1927, thus giving members something to keep them busy over the Christmas vacation.

Attention is drawn also to the tennis tournaments which are being arranged for evening play during the vacation. Any who wish to enter, and who have not yet handed in their names, should do so, as soon as possible. Full particulars may be obtained from any member of the executive.

We would like to see a more personal interest in our activities displayed by ex-students. There

are many things that the committee wish to push forward, in order to bring past and present students together, but find it well nigh impossible with so few ex-students on the roll of club members.

Those members who will still be at the college next year will be particularly pleased to hear that the lighting is to be improved, over the vacation, by the installation of new fittings. Unfortunately we were unable to have anything done in this connection in time for the annual examination. However, we will probably appreciate them better under the more normal conditions.

Speaking of lighting, we would remind members that there is still room for some "hand-made" lamps in the club room similar to those already in use. We want a complete set for the new year.

Any members who have not yet obtained their new badges should do so without delay.

MUNICIPAL COUNCIL OF SYDNEY

*To Architects and Builders.**City Corner Sites.*

Notice is hereby given that owing to general City improvements and congestion of traffic urgently rendering necessary the splaying or rounding of buildings at the intersection of streets so as to provide greater visibility, the Council has decided, where practicable, that corners shall be splayed.

In accordance with this decision, all building plans of these sites involving new erections or alterations to existing premises shall be submitted to the City Engineer and City Surveyor to consider the advisability of rounding the corner before the new building is erected or the alterations completed.

Architects and Builders whose clients contemplate such work can avoid any unnecessary delay in the approval of the plans if they immediately inform the City Architect of their intentions in order that the future building line may be determined prior to the completion of the plans.

The Council desires to give every assistance to Owners, Architects and Builders in the preparation of their plans, and earnestly requests their co-operation and support in effecting these improvements.

W. G. LAYTON,

Town Clerk.

Town Hall, Sydney.

1st December, 1926.

NEWS AND NOTES

AN INTIMATE THEATRE.

The work of constructing a new theatre for J. C. Williamson Ltd. on a corner site opposite His Majesty's Theatre, having a frontage of 100ft. to Exhibition Street and 135 ft. to Lonsdale Street, will be commenced almost immediately, to plans by Mr. Albion H. Walkeley, F.I.V.I.A., and Mr. C. N. Hollinshed, A.R.I.B.A. The theatre, which will have a capacity of about 1,000, and will take nine months to complete, will not have either an upper circle or a gallery. The lighting, accoustics, ventilation, and other features will be of the latest types, and special facilities will be installed for the rapid handling of scenery. Sir George Tallis said yesterday that the erection of this theatre would enable the firm to produce many plays which had not been practicable or satisfactory in larger theatres. The reception the public had given the Barrie plays presented by the Boucicault company had indicated that there was room for such a theatre in Melbourne, to be devoted to a continuous series of similar productions for which the ordinary theatre was not suitable. One of the objects of the new theatre was to house the repertory theatre organisation which had been initiated in Sydney by J. and N. Tait, and carried on for some years in conjunction with Mr. Gregan McMahon, and which will play a season of at least three months in every year at the new theatre. The theatre, he hoped, would be opened with the production by Dion Boucicault and Irene Vanbrugh of a new series of plays.—Melbourne "Argus."

BRISBANE'S BUILDING LAWS.

New building ordinances of the Brisbane City Council will become operative this week. They are contained in a bulky volume, and every type of building, from the modest cottage to the largest permissible "skyscraper," comes within their jurisdiction.

Most of the ordinances are similar to those of the old council. But they have been enlarged by several im-

portant clauses and brought up to date. The city architect (Mr. A. H. Forster) drafted the ordinances, and before bringing them to finality he did a great deal of preliminary research work. He carefully studied the building regulations of other capital cities, and also cited those of English and American cities. At the same time he carefully provided for conditions peculiar to Brisbane.

Great care was exercised in determining the maximum height of buildings in first-class areas. The T. & G. Building and Ascot Chambers have reached the maximum height permitted in streets of similar width to that of Queen Street. Mr. Forster considers the maximum height allowed is a happy medium—high enough for an impressive and dignified building, but not so high as to overshadow other buildings or cause congestion of traffic in the streets.

In streets and alleys 33 feet wide, and under, no building shall be erected or altered to exceed in height four times the width of any street or alley to which it fronts, but such height shall not exceed a maximum of 82ft. 6in. for non-fireproof construction, or 99ft. for fireproof construction.

The height of buildings in streets over 33ft. wide may be increased six inches for every foot that the street exceeds 33ft. in width, but the maximum height shall be 100ft. for non-fireproof construction, and 132ft. for fireproof construction. These limitations, however, do not apply to a church or chapel, nor to ornamental towers, domes, or architectural features of decoration.

Provision is made in the new laws for a zoning system. The city has been divided into first and second class areas, and in the former only buildings of fireproof material can be erected. These areas have been further subdivided into one storey and two storey districts, which means that in only certain specified places can buildings of less than two storeys be erected. The principal thoroughfares of the city, South Brisbane,

and Fortitude Valley are classified as first class two-storey areas. The ordinances of course, do not apply to buildings in existence, or which have been commenced before the ordinances came into force.

Greater control is given to the council over flats and the new laws consist of conditions of decency, comfort, and privacy for flat dwellers. Permission must be obtained before any building can be converted into flats and plans of the remodelling scheme must be approved by the city architect.

Any building hereafter erected, constructed or altered to contain flats, apartments or tenements shall not occupy more than 50 per cent. of the allotment of land on which it stands. But when the building is not more than three storeys in height it may occupy two-thirds of the allotment. Such buildings shall not be erected nearer to the boundary between the allotment on which it stands and any adjoining allotment than five feet for a building of one storey above the ground, seven feet for two storeys, and 18in. additional for each extra storey. Within each flat there shall be a bathroom, water closet (if sewerage is available), and a kitchen. Provision also is made for privacy within each flat, and for sound-proof walls.

In a residential area no building or part thereof shall be erected or permitted within 16ft. of the alignment of the street which the front of the building faces, or within 7ft. of the alignment of any side street.

Elaborate provisions have been made for the prevention of fire in theatres, hotels, clubs, boarding houses, and shops. Exterior walls, floors and staircases must be formed of fire-resisting material, and fire-fighting appliances must be installed.—"Daily Mail," Brisbane.

AUCKLAND'S CIVIC CENTRE.

The report of the Civic Centre Commission—Sir John Sulman, Mr. S. Hurst Seagar and Mr. W. E. Bush—was presented last evening to a meeting of the special committee of the City Council, at which the other members of the council were present by invitation. The report was read by Sir John Sulman, and the committee decided to refer it to the council for consideration.

The commission has recommended the development of a civic centre including the civic square area and comprising a considerable extent of property on the eastern side of Queen Street. For the accommodation of the municipal staffs, it proposes the erection of a building similar to the existing Town Hall, in architectural treatment, on a site at the junction of Wakefield Street. The Art Gallery would be placed on the civic square area, and on the corner of Queen Street and Wellesley Street, a commercial building—which might be a hotel—would be erected.

On the eastern side of Queen Street, an area of equal extent would be required to be set aside for similar treatment to that proposed on the western side, but this portion of the scheme might be postponed for many years. It would eventually include a municipal administrative building, while the Pacific Buildings would be altered to harmonise with the proposed commercial building on the opposite block.

In its complete stage the civic centre would be approached by a street 150 feet wide, flanked by two business blocks. Immediately south of them the square would open out to give a width of 300 feet between the Art Gallery and the new municipal building. Both the latter would have frontages 270 feet long, and their southern walls would be 110 feet north of the

apex of the present Town Hall, giving an open space 450 feet long by 300 feet wide. This square would be closed architecturally on the south by the Town Hall and the new office building, connected by a bridge spanning Queen Street.

The commission suggests that the scheme should be undertaken in two programmes. The first would comprise the first portion of the Art Gallery, the Town Hall extension, and the lay-out of the western side of the centre, requiring a loan of £630,000, and involving a net charge of £8,450, which would be covered by a rate of one penny in the pound. The second might be postponed until the first loan had been repaid by the accumulated sinking fund. It would require a loan of £383,000, and the net charge would be £11,145.—"Herald," Auckland, October 23.

HAWTHORN'S NOVEL PROPOSAL.

A resolution agreeing to make and adopt a new by-law regarding new buildings in the municipality was passed by special order at a meeting of the Hawthorn Council on Wednesday night. The new by-law, when gazetted, will make an important alteration in regard to the erection of a building of more than one storey in height in a residential area. The advent of residential flats together with the largely increased value of land has made the erection of buildings with several stories a likely possibility. An important provision in the new by-law is that when a building more than 12ft. high is erected, the distance from the boundary line of the allotment of land shall be increased by 1ft. for every additional 3ft. in height. The reason for this proposal is that occupiers of houses on allotments adjoining high buildings shall not be deprived of a fair share of natural light. Another provision in the new by-law relates to the erection of public buildings, such as churches, halls, or theatres, in a residential street. At present, in the municipality of Hawthorn, a private house must be built not less than 15ft. back from a front footpath, but a church or other public building may be built right up to the footpath. When the new proposal becomes law, no distinction will be made between public and private buildings. In any residential area all buildings will have to comply with the requirements of the new by-law. Although the by-law was formally passed by the Hawthorn Council on Wednesday, several councillors expressed doubts regarding its practicability. There is a possibility that it will be amended considerably before it is gazetted.—Melbourne "Argus."

SMALL HOUSE PLAN SERVICE BUREAU.

The Memorandum and Articles of Association of the above Bureau have been compiled and are now in the hands of the Attorney General's Department, with the application for license to register under the Companies Act of N.S.W.

As soon as registration is complete, a competition for designs for Small Houses, open to all Architects of N.S.W., is to be held. It is proposed to limit the size of houses, the maximum being 1300 square feet to include all floors, walls, verandahs, porches, etc. Approximately thirty designs will be required to start with. £50 is to be paid for each of the accepted designs. Short notice only will be given of the Competition, and as it may be advertised before the next issue of "Architecture," this preliminary notice is given

to all members of the Institute so that they may anticipate it and get their designs under way. A draft copy of conditions of Competition may be seen at the Institute Rooms.

NEXT FIVE YEARS.

How far will the metropolitan boundaries extend in ten years' time? This question occurs naturally to those who have marked the recent wonderful growth of Sydney. Since 1921 more than 50,000 new houses have been built, and a much higher figure should be recorded during the next five years.

Sydney is now the second city in the British Empire—its population being exceeded only by that of London, the hub of the world. The gain since 1924 has been 100,000, and the total for the metropolis is approximately 1,250,000. In another ten years the 2,000,000 mark should be reached.—Sydney "Sun."

ARCHITECTURAL STUDENTS.

COPY OF RECOMMENDATION from the Education Committee. Received and adopted by Council at meeting held 19th October, 1926:—

RECOMMENDED TO COUNCIL THAT provision shall be made in the Articles of Association that students of the Sydney University and Technical College be eligible to be registered as probationers at a fee of five shillings per annum; then, on being registered as students, they shall pay an annual fee of ten shillings and sixpence.

THAT students of the University School of Architecture and Technical College Diploma Course who have passed three years' examinations shall be exempt from passing an Intermediate Examination.

THAT other applicants applying to be registered as students must pass an examination similar to the R.I.B.A. Intermediate before they can become registered.

NATIONAL WAR MEMORIAL.

Having visited the Eastern States as chairman of the Board of Assessors appointed by the Federal Government to adjudicate upon the competitive designs for the Australian national war memorial, Sir Talbot Hobbs returned to Perth yesterday by the Great Western express. Sir Talbot said that the memorial was to be erected in a commanding position at Villers-Bretonneux, at cost of £100,000. The board had selected several designs that had been despatched for final adjudication to the Royal Institute of Architects, London. Many of the designs submitted were of a high standard, but exceeded the cost permitted by the authorities.—"The West Australian."

HISTORIC CHURCH.

The historic church of St. John the Baptist, Canberra, requires the expenditure of £1500 for restoration work, and, as it is considered that the church forms a link between the Canberra of the last century and the Canberra of to-morrow, an Australian-wide appeal is being made for this amount. The original church was commenced in May, 1841, and was built by Mr. Robert Campbell, M.L.C., who was Sydney's first mercantile trader. It was consecrated in March, 1845, and in 1872 an extension of the nave was built by Mr. George Campbell. In the succeeding two years Mr. John Campbell, M.L.C., added the chancel. The original tower, built in 1845, was removed in 1864,

and the present tower was added in 1870, while a spire surmounted the work in 1878. Canon F. G. Ward, of Canberra, is making the appeal.—"Sydney Morning Herald."

GOLF COURSE ARCHITECTURE.

Travelling to Melbourne on the liner Otranto, which reached Fremantle from England yesterday, was Dr. A. M. Mackenzie, an expert in golf course architecture, who has been engaged by the Royal Melbourne Golf Club to remodel its links. Dr. Mackenzie graduated in medicine, but his enthusiasm for golf led him to devote the whole of his attention to studying the layout of courses. He has designed courses throughout England and the United States of America, and is the author of a publication dealing with the study of golf architecture. He said that one of his principal aims, when designing a course, was to make every feature so natural that a stranger could not distinguish it from a natural formation. During the war he was in charge of the camouflage schools, and was the originator of many of the devices used for disguising army operations.—"West Australian."

LACK OF COLOUR.

"Sydney is the most sordid city in the world for colour," said Sir Bertram Mackennal, R.A., in opening the exhibition of Sydney Ure Smith's works at the Macquarie Galleries. Yet the city, he added, was so situated that it demanded colour. In London a man had a yellow door if he wanted it, but bright colours were needed more here. This place had no right to put up with what might suit the more sombre atmosphere of the Midlands, in England. He had been struck with the queer Georgian effects in some of the buildings depicted by Mr. Smith. The effect of a picture depended a good deal on the wall on which it was hung. A delicately drawn work had little chance on heavy wall paper with elaborate designs. He found in Sydney homes, wall papers which were used in England many years ago. He only wished people here had some of the delightful wall papers which were used in England to-day.

A HIGH HONOUR.

On the recommendation of the Council of the Royal Institute of British Architects, the King has bestowed the Royal Gold Medal on Professor Ragnar Ostberg, the architect who designed the Stockholm Town Hall. This is one of the highest honours in the gift of the profession.

REMINDERS.

ANNUAL MEETING.—Members are notified that the date of the Annual Meeting has been fixed for TUESDAY, 8th February, 1927, and that there will be no monthly General Meeting held in January.

ANNUAL EXHIBITION.—Members are reminded that the Annual Exhibition will be held about the beginning of June, 1927, and are requested to get designs well in hand in anticipation.

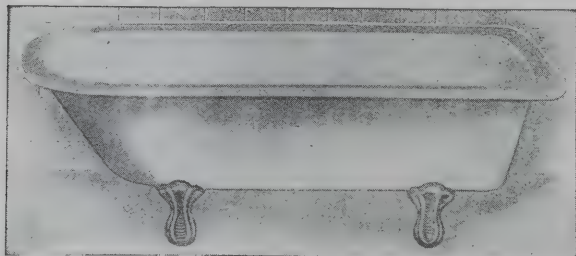
JOSELAND PRIZE.—Students are reminded that the conditions of this prize are obtainable at the office of the Institute.

BRONZE MEDAL COMPETITION.—Students are reminded that conditions for this competition are obtainable at the office of the Institute.

DIPLOMAS.—Members who have not yet received their diplomas are reminded that there are still a number unclaimed in the office of the Institute.

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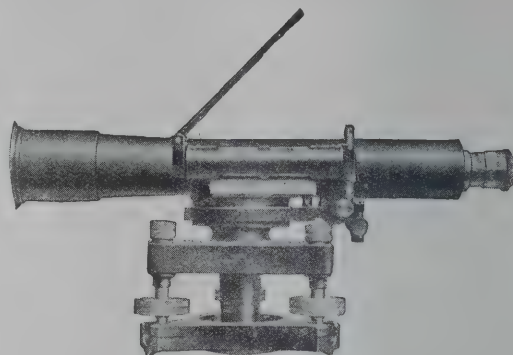
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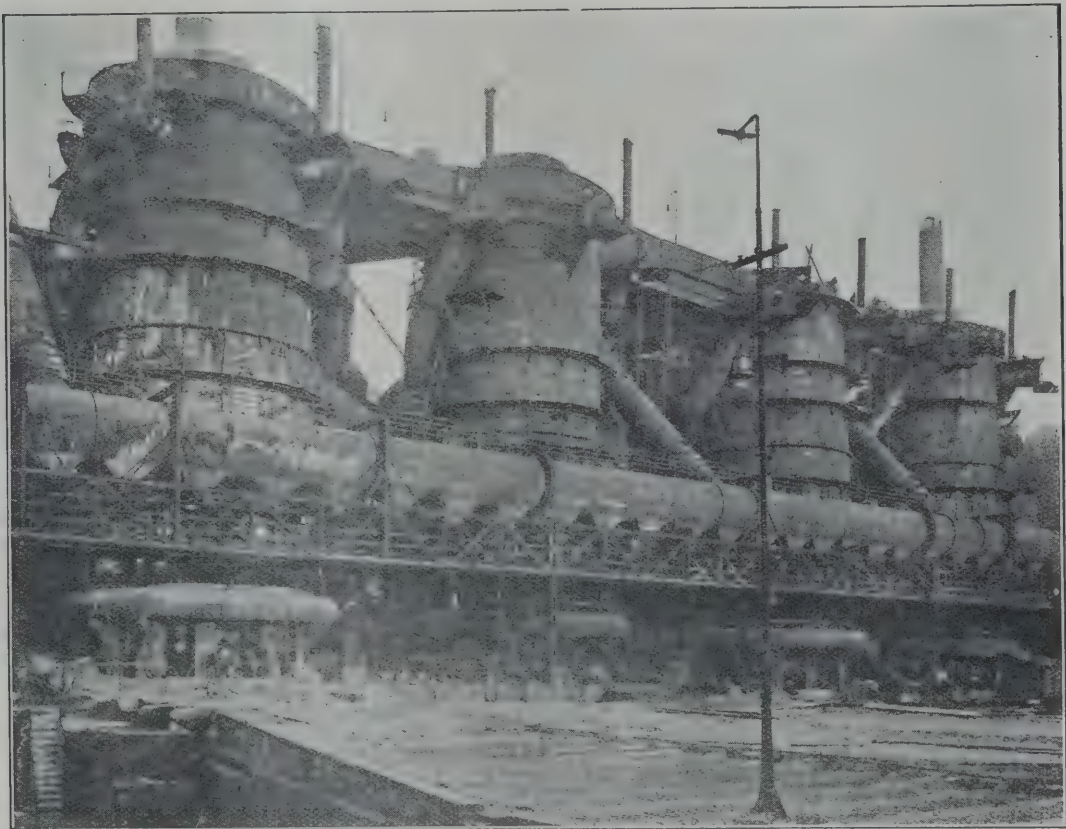
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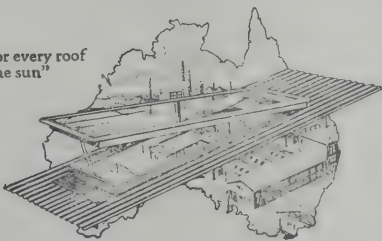
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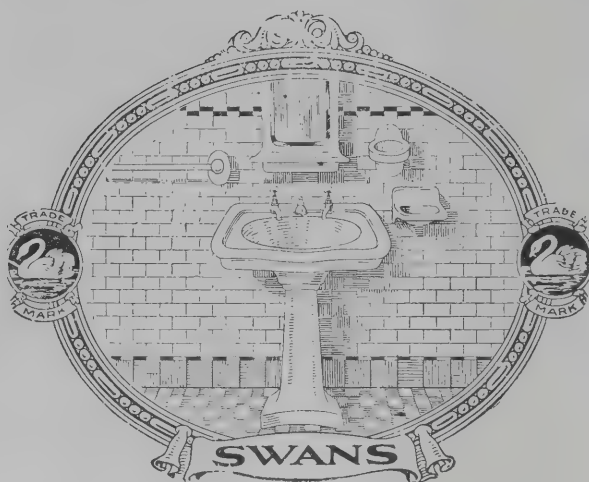
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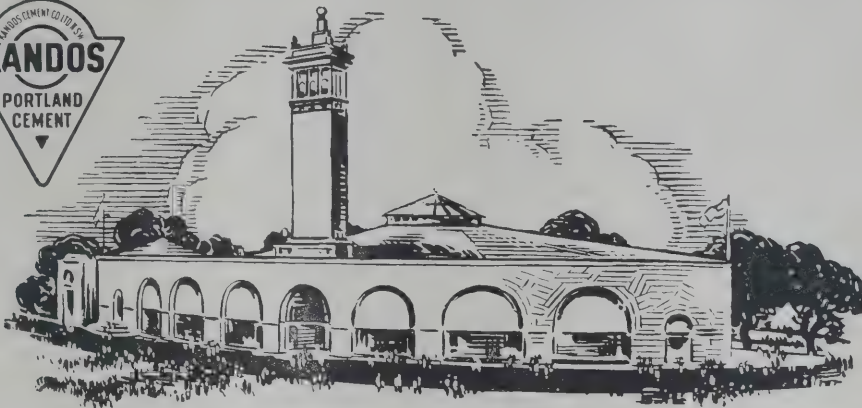
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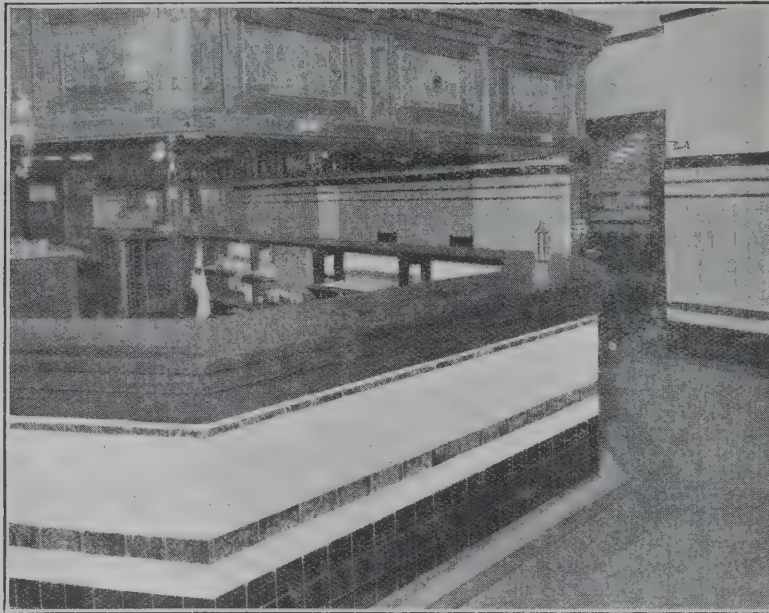
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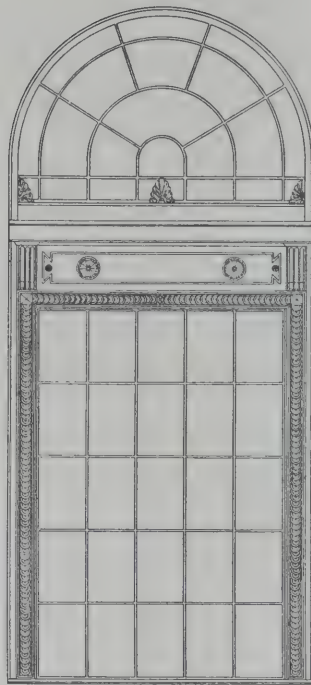
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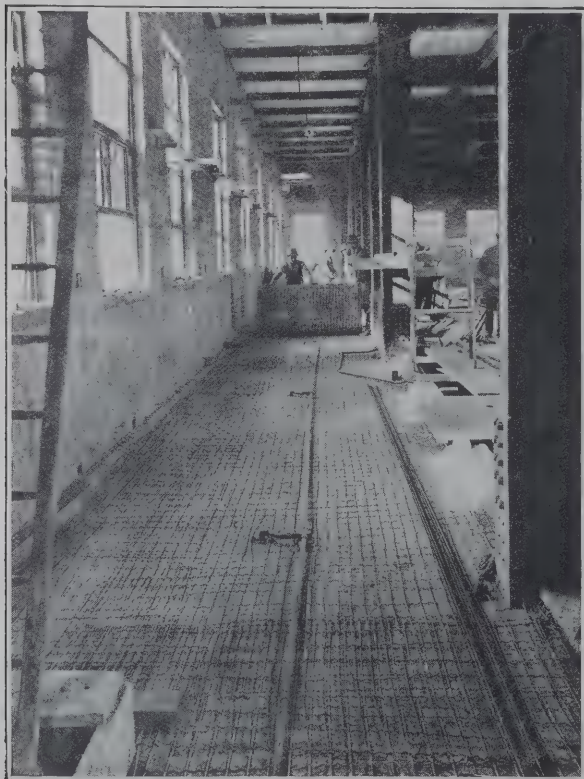
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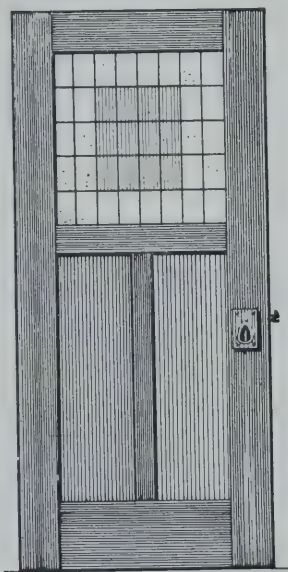
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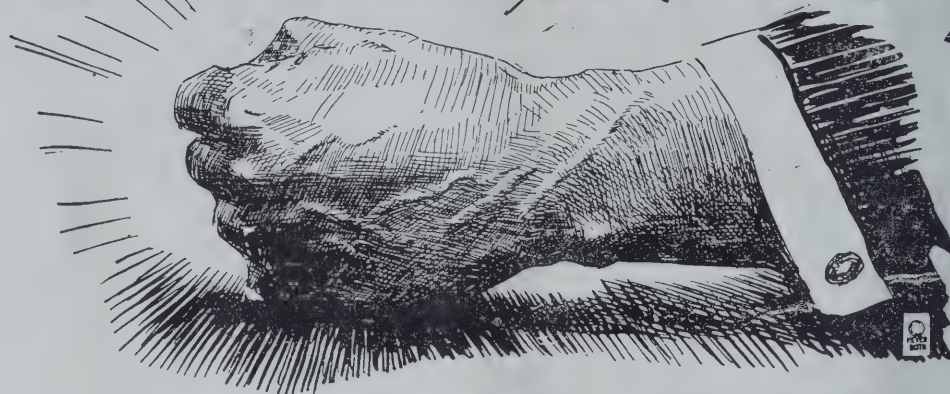
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